REPORT RESUMES

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THE PREPARATION OF YOUTH FOR EFFECTIVE OCCUPATIONAL UTILIZATION, THE ROLE OF THE SECONDARY SCHOOL IN THE PREPARATION OF YOUTH FOR EMPLOYMENT.

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ISSUES IN THE EDUCATION OF YOUTH FOR EMPLOYMENT WERE INVESTIGATED. THE STUDY INCLUDED AN EVALUATION OF VOCATIONAL EDUCATION, ITS IMAGE, AND THE ROLE IT PLAYS IN THE TRAINING OF SUCH SPECIAL GROUPS AS GIRLS AND NEGROES. IT WAS FOUND THAT, FROM AN EARNING POINT-OF-VIEW, GRADUATES OF VOCATIONAL EDUCATION CURRICULUMS DID AS WELL AS ACADEMIC GRADUATES, ALTHOUGH THE FORMER APPEARED TO BE MORE SATISFIED WITH THEIR JOBS. NEGROES WERE USUALLY BETTER IN VOCATIONAL EDUCATION CURRICULUMS THAN IN THE ACADEMIC CURRICULUMS, BUT APPEARED TO BE BLOCKED IN JOB PLACEMENT. OPPORTUNITIES FOR GIRLS WERE QUITE LIMITED. IT WAS RECOMMENDED THAT OCCUPATIONAL TRAINING PROGRAMS BE EXPANDED TO MEET THE NEEDS OF ALL YOUTH AND THAT NEW METHODS OF INSTRUCTION BE DEVISED TO MEET THE NEEDS OF YOUTH IN THE SECONDARY SCHOOLS. IT WAS ALSO RECOMMENDED THAT THE ADMINISTRATION OF VOCATIONAL EDUCATION BE GIVEN A GREATER VOICE IN THE SETTING OF SCHOOL POLICIES AND PROGRAMS. FINALLY, IT WAS RECOMMENDED THAT INDUSTRIAL ADVISORY GROUPS PARTICIPATE MORE ACTIVELY IN PROGRAM PLANNING. (TC)

THE PREPARATION OF YOUTH FOR EFFECTIVE OCCUPATIONAL UTILIZATION,

The Role of the Secondary School in the Preparation of Youth for Employment

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
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under the general direction of Jacob J. Kaufman and Carl J. Schaefer

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All of the communities participating in the study exhibited various strengths and weaknesses. The conclusions reached are based on general patterns found for all the communities and no criticism should be interpreted as reflecting on any one community.

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PART I - INTRODUCTION

CHAPTER 1

ISSUES IN VOCATIONAL EDUCATION

The most significant characteristic of the labor force during the current decade is the dramatic increase in the number of youth expected to be available for employment. The Manpower Report of the President (1963, p. 90) states:

> The total number of young people who will enter the labor force between 1960 and 1970 has been estimated at 26 million, a far greater number than the country has ever had to educate, train, and absorb in employment in any comparable length of time .... Obviously, the better the young people's education and training, the greater their opportunities to obtain satisfactory jobs.

When this substantial increase in the number of young people entering the labor force throughout the 1960's is considered along with the fact that there will be substantial increases in demand for professional, technical, and skilled workers during this same period, it becomes quite evident that the education and training of youth is of paramount importance if these youth are to be placed in jobs, kept out of the ranks of the unemployed, and find a place for themselves in society.

In our society the development of human skills takes place in many forms and areas, including post-secondary technical education, training on the job, apprenticeship programs, training and retraining by government agencies, as well as vocational and college preparatory training in the secondary schools.

This study is concerned with the conventional curriculum at the less than baccalaureate degree. This curriculum includes "a carefully selected group of courses or a sequence of subjects, the content of which will provide the necessary skill and knowledge for success in a specific occupation." The study is further limited to state-approved programs of vocational and technical education in the eastern and central regions of the country.

In recent years vocational and technical education have received more than a cursory examination. Both the members of the vocational education profession and other interested persons have entered into the debate of its value to both the individual and society. The key to the answer to the questions raised can be found at the local level of operation. At this focal point educational input varies in both quality and quantity. It is this "variance" that compels an investigation to determine what is being accomplished, through vocational and technical education. To carry on this investigation, the U. S. Office of Education provided a grant to finance a study for a two-year period, from 1964 to 1966.

General Objectives of Study

The general objectives of this study were two-fold.

The first was to study and assess, in their actual setting, public (state and federal-aided or reimbursed) vocational secondary school programs and the extent to which they are meeting the needs of the students and the communities. The results are presented in Part II and are discussed under the general heading of the educational process.

The second was to assess the vocational and technical education curriculum in the secondary school when compared with other high school offerings that "feed into the employment stream": i.e., college preparatory curriculum graduates who do not go on to college and graduates from the general curriculum. These results are presented in Part III where the employment experiences of graduates and the attitudes of graduates and others are analyzed.

Methodology

To achieve the first objective the school programs themselves were examined by an independent team of experts on the basis of nature of offerings, organization, physical facilities, and direction of learning in each of the school districts studied.

The attainment of the second objective required a study of the graduates of the schools. An evaluation of the graduates, in terms of how well they met and measured up to employer requirements, was made on the basis of interviews with employers and union officials, and appraisals by both school officials and supervisors. In addition, youths who had graduated from the vocational-technical, college preparatory, and general curriculum programs, during the preceding five years were randomly selected and interviewed. Additional information was obtained from graduates who were unavailable for personal interviews by mailed questionnaire to determine what happened to them after graduation. A supervisor's rating scale was used to ascertain ratings of the "on-the-job" quality of high school graduates.

These assessments and evaluations were carried on in nine communities in various states. They were selected on the basis of size, rate of unemployment, degree of unionization, and type and breadth of vocational and technical education programs and included three large cities -- Baltimore (Maryland), Cleveland (Ohio), and Philadelphia (Pennsylvania); three medium-sized cities -- Allentown (Pennsylvania), Camden County (New Jersey), and Trenton (New Jersey); and three small cities -- Altoona (Pennsylvania), Atlantic City (New Jersey), and Findlay (Ohio).

The methodology employed is discussed in detail in Chapter 2.

Economic and Social Changes

Since World War II certain phenomena have taken place in the structure of employment. First, in the mid-fifties the proportion of workers engaged in the service industries became larger than the proportion engaged in production. It is quite clear that this country has moved from blue-collar to white-collar employment. Second, it is not unreasonable to assume that, in the future, our changing technology will require youngsters--as well as adults --to change their occupations more frequently than in the past. Third, an increasing proportion of women are actively participating in the economic process. Fourth, the civil rights movement of the past decade has raised the question of Negro employment and upgrading of skills of Negroes to the forefront.

In view of these structural and social changes the vocational and technical education programs are faced with a serious challenge. Reports of various commissions have taken cognizance of the fact that "inflexibility" of vocational programs is one of the most critical problems facing vocational education. The Report of the Panel of Consultants on Vocational Education, for example, stated:

> Relating the highly dynamic changes occuring on the labor market to the characteristics of educational institutions in our society, we are forced to conclude that the secondary schools, because of their resistance to change and the relative inflexibilities of their structures and curricula, cannot provide direct vocational education for many, if not most, of the emergent occupations. Structures which are flexible, adapted to change, and able to modify programs rapidly according to both initial and retraining needs of the labor force would be most functionally suited to contemporary conditions.

This approach, of course, assumes that the process by which one can offer youth the necessary flexibility and adaptability is through vocational and technical education.

Vocational Education - Its Adaptability and Flexibility

The educational process, that is the manner in which vocational education is conducted in the nine communities included in this study, is described and evaluated in Part II. In this evaluation two basic questions were kept in the forefront:

1. To what extent has vocational education penetrated the student body in the school systems?

2. Have the vocational education programs been related to the needs of the students and the changing occupational structures of the communities?

To answer the first question it was necessary to analyze the enrollments in the vocational education programs in the nine school systems visited. To answer the second question the enrollments in each program were studied in relation to the occupational structure of the communities. This required an analysis of census data in terms of population trends, employment and unemployment trends, and occupational distributions. In addition, data were obtained from the schools in the extent to which graduates of the vocational curriculum were placed in jobs related to their training.

Enrollments, placements, and various types of social and economic data are analyzed in Chapter 3.

In Chapters 4 and 5 the issues of flexibility and adaptability are further explored. This analysis is based on the studies made of vocational education by a team of professional educators who visited the nine communities. These experts usually studied the existing programs in terms of objectives, physical facilities, instructional program, guidance, and placement. They examined the extent to which the people conducting particular vocational programs were attempting to devise different types of programs aimed at meeting community needs. The team explored the questions of whether the local educators were expanding their present programs by simply hiring more teachers, buying new equipment, setting up more shops, and so on, or whether the local educators were revitalizing vocational education.

Vocational Education and Individual Differences

Probably the most serious problem facing education in general today is to provide an educational system which acknowledges the existence of individual differences among our youth and which creates adequate facilities and programs to meet these differences.

There are generally three types of curricula in our secondary schools--the academic (college-preparatory), vocational, and general. A very large proportion of students do not have the intellectual prerequisites, aptitudes, or interests for an academic education. Nor do vocational education programs--because of requirements--meet the needs of these students. Therefore, a large number of students find themselves enrolled in the "general curriculum." In most instances, this is not a curriculum but, for boys especially, simply a combination of low-level academic and industrial arts programs. Probably one-third to one-half of the students in secondary schools fall into this category.

Most educators would admit that even if present vocational programs were expanded to the fullest, there would remain a sizeable percentage of young people who would still not be served. Included among these young people would be some for whom present programs have no inherent interest, others who cannot decide what type of program they wish to take, still others who do not wish to commit themselves to a certain type of training, some who see little opportunity for themselves even after completing these programs, and many others who are excluded or who exclude themselves for a variety of other reasons. Most of these students either leave school before graduation or continue on in the general curriculum.

Although the study did not attack this problem directly, the following questions emerged as the study progressed. To what extent has vocational education assumed any responsibility for this group of students? Should vocational education assume this responsibility? Although there is some evidence that the vocational education program can better evoke the initiative of students, significant modifications may be necessary for this type of student.

Chapter 6 explores the employment experiences and attitudes of graduates of the three curricula. It might be noted that the experiences and attitudes of the graduates of the general curriculum were found not to be significantly different from those of the vocational graduates. This does not necessarily reflect on the adequacy of the general curriculum. Rather, it may well reflect the fact that the students enrolled in this curriculum had the necessary qualities "to stick it out," which qualities yielded the same "success" as vocational graduates.

In this study it was felt that it was essential to determine whether or not the objectives of education are being met and to evaluate the outputs of education. In the past, quality of output has been measured by indices as expenditures per pupil, teachers' salaries, size of classes, etc., and the quality of output measured in terms of IQ, college entries, etc. In this study quality is measured not only by earnings and placement but also in terms of placement in occupations congenial to the worker, feelings of satisfaction and accomplishment in his work, a sense of making a meaningful contribution to society, and ability to plan and guide one's own vocational experience. This aspect of "quality", as well as earnings and employment experiences, is discussed in Chapter 6.

It has been strongly advocated that one of the ways of increasing the flexibility and adaptability of youth for work is through vocational guidance and counseling. There is every reason to believe that the non-college bound student needs counseling and guidance more than the college bound student. To what extent is the counseling office simply an adjunct of the college admission office?

The most vital contribution counseling and guidance can make to vocational students is the fostering of attitudes of control and providing information on the basis of which they can plan their vocational lives. Most middle-class children receive these attitudes through the socialization processes in their homes. The parents of vocationally undecided students, however, tend to have unstable employment patterns. Such parents do not always provide the necessary role models. They may feel the vagaries of their occupational lives are beyond their control, and they tend to pass on these attitudes to their children. Counseling could provide a different model, a problem solving approach.

Chapter 4 discusses the adequacy of counseling and guidance in the vocational schools. In Chapter 8 the experiences of the graduates of the three curricula, in their relationship to counselors, are also explored.

The Image of Vocational Education

One further consideration, which is applicable to both the academic and vocational subjects, is the adequacy of the education and training of teachers in relation to the needs of the students. To what extent do the middle-class values of the teachers (and administrators) permeate the education programs and thereby create a wall between the school and the youth who have been brought up with a different set of values? What understanding do school officials and teachers have with respect to the attitudes and backgrounds of the youth before them? In this connection, the study explored the attitudes of teachers toward vocational education and attempted to relate these attitudes toward the quality of vocational education found in the various school systems. The image of vocational education as seen by teachers of various subjects, including academic and vocational, in both the academic and vocational high schools, is discussed in Chapter 7.

Community support for vocational education is sought frequently by vocational educators. To what extent do employers and unions actively participate in the development of programs and assist in the placement of graduates? What understanding do these two groups have of vocational education? What image does vocational education project in the community? These questions are also explored in Chapters 4 and 7.

The Comprehensive vs. the Separate Vocational School

No discussion of quality of vocational education can ignore an issue which always comes to the fore, namely, the separation of the vocational education facilities from the academic education facilities. And, with respect to separate vocational educational facilities, the issue of the "area" school has been revived. The separation of facilities has been praised and condemned in many studies. It is indeed unfortunate that so much energy is devoted to the discussion of the question of a comprehensive school system. It would seem that the substance of vocational education should be subjected to careful examination before a decision is made as to its administration. In Chapter 8 certain aspects of this question are examined by comparing student employment and other experiences and reactions in terms of the types of school attended.

The Negro and Vocational Education

Education's most crucial issue today is probably the elimination of segregation from the schools. In the area of vocational education either de facto segregation, reflecting patterns of residence, or actual discrimination against Negro participation in vocational education, is found in many communities. The latter form of discrimination reflects either high selection standards or recognition by Negroes that employment opportunities will be denied them even if they complete the program. It is essential to ask the question of how adequately vocational education leaders have faced up to the issue.

Approximately 20 per cent of the graduates interviewed in this study were Negroes. The experiences of these graduates were compared to their white counterparts. All of the respondents in the study, it will be recalled, were graduates of high school. This point is stressed because "dropping out" is one of the major problems of Negro youth. These respondents are the products of those combinations of personal and environmental circumstances that are necessary for Negro youth to complete high school.

The question arises concerning the employment experiences of Negro youth in terms of the type of curriculum from which they graduated. Do they earn more or less compared to white youth? If they are disadvantaged in this respect in each curriculum, are they relatively less worse off in the vocational curriculum? How do Negroes evaluate their school experiences and what are their evaluations of their job experiences, primarily in terms of the curriculum in which they were enrolled and in comparison with white youth?

These, and other questions, are discussed in Chapter 9.

Girls and Vocational Education

Probably one of the groups least served vocationally in our society has been women, despite some advances which have been made in the past two decades. There has been a general tendency for girls to enter and remain in the labor force. And women, after having children at an earlier age, are increasingly returning to the labor force. To what extent has vocational education adjusted to these shifts? Has the breadth of vocational programs been expanded to take cognizance of these developments?

These, and other issues, are explored in Chapter 10.

Self-Concept in Vocational Development

The selection of the vocational curriculum is typically the first of a series of choices that shape and limit the occupations open to an individual. Chapters 4 and 8 point out that in most cases the choice is made without the help of a guidance counselor. Other research has shown that choices made in the ninth or tenth grades are unstable. The data in Chapters 6, 9, and 10, however, show that on measures of job satisfaction, ratings of preparation, congruence between occupations desired and obtained, etc., vocational graduates are at least as well off as graduates of the other curricula.

To gain understanding of the psychological processes underlying vocational decisions and how these processes relate to some of the variables in Chapters 6, 9, and 10, additional information was obtained from a subsample of the male respondents. This information consisted of the respondents' ratings of ideal jobs and of actual jobs they had held. These ratings were compared to see if the actual ratings became more similar to the ideal ratings with increased labor market experience. This measure, the degree of similarity of the ratings, was defined as self-concept implementation. Certain hypotheses derived from self-concept theory were tested. The results are presented in Chapter 11.

In attempting to assess and evaluate vocational education in the 1960's every effort was made to approach the issue in an objective manner. In carrying out this task various obstacles were encountered which required some adjustments in methodology. The data were examined and reexamined in order to draw appropriate conclusions. These conclusions and generalizations were always subject to change, and new hypotheses were raised and tested in the course of this study. These conclusions are set forth in Chapter 12.

On the basis of these conclusions certain recommendations are made in Chapter 13. They represent the thinking of the project staff and they are offered in order to contribute to a continuing discussion of an important issue which is vital to the youth, the schools, and the community--the preparation of youth for a productive role in society.

CHAPTER 2

APPROACHING THE PROBLEM: THE METHOD

There were three general objectives of this study. The first was to study in their actual setting public high school vocational programs receiving federal and state reimbursement and to determine their impact on current manpower utilization. The second was to describe the employment experiences and attitudes towards their high school experiences of graduates who entered the labor market upon completing high school. Although the primary emphasis was on the vocational graduates comparable groups of academic and general curriculum graduates were also studied. The third was to examine the image of vocational education held by three groups: teachers, employers, and union officials.

To carry out the first of these objectives a team of experts in the various programs of vocational education visited the study cities to assess their vocational programs. The assessment concerned itself with four general areas: administration, vocational guidance, the programs and courses, and contact with the community.

The administration, including the board of education, was assessed on organization and effectiveness in contributing to the development and operation of a sound program of vocational-technical education to meet the needs of the students and the community.

The aims and objectives of vocational guidance and the degree to which these influenced the vocational program were explored. The evaluation included ratings of the physical facilities, equipment, and the qualifications of the personnel. It attempted to gauge the extent to which the guidance department was an integral part of the entire school system, including its relationships with teachers, students, feeder schools, employers, and employment services, and its effectiveness in the selection, guidance, placement, and follow-up of graduates.

The following vocational programs were appraised: vocational agriculture, distributive education, home economics, office occupations, technical, and trade and industrial education. The evaluations covered the aims and objectives, physical facilities, instructional staff, quality of instruction, and the degree to which the programs were meeting the needs of the students.

A representative from labor and one from management were present on the visiting team to add another viewpoint. In addition to visiting the vocational classes, these members talked with local businessmen and labor officials to obtain their opinions on the vocational programs.

To put the school assessment into proper perspective, background data were gathered on economic and demographic trends in the studied communities. Changes in the structure of the community populations with regard to size, color, age, and educational attainment were ascertained. Structural changes in the labor market were examined to determine the shifts in demand for certain types of occupations and skills.

The primary indicators of the adequacy and quality of the vocational education programs are the experiences of their graduates in the labor market. To determine the extent to which the training met the needs of the graduates, approximately 5,200 graduates of three curricula were personally interviewed. To provide a control group for comparison with the vocational graduates' experiences, comparable groups of academic (college preparatory), who did not go on to college upon graduation, and general curriculum graduates were interviewed. In addition, data were obtained from about 3,200 graduates who were contacted by mail. This mail sample was composed partly of graduates who were unavailable for personal interviews because they had moved from the county where they had been graduated from school. The remainder came from lists provided by the schools.

Both in the personal interview and mail samples the graduates were questioned concerning their attitudes toward their high school experiences. These questions included what the graduates had liked and disliked about high school and how they felt they were treated by their classmates and by school officials. They were also asked about their post-high school occupational and educational experiences. A work history covering each job that conformed to the study definition was compiled. Information was also obtained concerning each post-high school training program the graduate had taken.

The third objective, examining the image of vocational education held by three concerned groups, was likewise accomplished through the use of personal interviews and mail questionnaires. Personal interviews were conducted with employers and union officials. At the completion of these interviews an attitude scale questionnaire was left with the respondents and they were asked to complete it and return it by mail. The same questionnaire was distributed to the faculties of the schools visited by the evaluation team. The teachers were asked to return the completed questionnaires through their school secretaries.

SECTION I: SELECTION OF SAMPLE CASES

Possible study cities in the eastern and central sections of the country were examined in the light of population size, rate of unemployment, type and breadth of the vocational education program, and geographic accessibility. Nine communities were selected on a stratified basis. Three large (500,000 or more population), three medium-sized (100,000 to 499,999), and three small (25,000 to 99,999) cities were chosen for study: Cleveland, Ohio; Philadelphia, Pennsylvania; and Baltimore, Maryland in the first category; and in the second Allentown, Pennsylvania; Camden City and County and Trenton, New Jersey; in the third, Altoona, Pennsylvania; Atlantic City, New Jersey; and Findlay, Ohio. All references to these communities from this point on are in terms of code names which were assigned to them. These communities were selected because they had typical vocational education programs of good professional repute (in at least three of the six vocational areas), they fit the size criterion, and they were within reasonable travel distance from the project centers.

For all cases except Lewis the unit of study was the local school system. Lewis has an area (county) vocational-technical school to which the county schools send those of their vocational students who qualify. This school, plus three high schools from communities in various parts of the county, were studied. The three large cities had arrangements similar to Lewis'. Each of the large cities has vocational-technical schools that qualified students could choose to attend. In these cities local school administrators selected matching nonvocational schools for the study that were similar in student characteristics to the vocational schools. The vocational and matching nonvocational schools received the major research emphasis.

Securing Cooperation

In each case the cooperation of the school system was secured. Once the school officials agreed to participate in the study, a person in the system was designated as contact person between the schools and the research staff.

To gain the cooperation of graduates and employers, letters were sent on the stationery of the local school system, with the signature of the appropriate school official. Local state employment offices provided lists of employers. In the middle-sized and small cities lists of graduates were obtained from the school systems. In the large cities graduates were identified and interviewed at their place of employment.

The letters to graduates included return post cards to verify the address; those reporting new addresses outside their home county were placed on the list to be contacted by mail. The interviewers attempted to contact those not returning a post card at their last known address.

Letters were mailed to employers requesting cooperation. The mailing included a supporting letter from the Chamber of Commerce and a pamphlet discribing the study. Employers who did not respond to the first mailing were sent a second to increase participation. Those who returned post cards indicating a willingness to participate were interviewed.

Appendix D contains copies of the letters. The exact content of the letters varied slightly by city. The biggest differences were in the Chamber of Commerce letters, but in all cases the request for cooperation was the same. The original graduate mailing on May 3, 1965 attempted to reach nine hundred individuals in each city. Addresses were up-dated and letters mailed until May 19, 1965. On the cut-off date, June 1, 1965, the personal interview list was randomly adjusted to 600 names, maintaining 300 names on the personal interview substitute list.

A mailing was sent to all major market employers in each city except the large cities of Quinn and Randall, where samples of employers were contacted. On June 8, 1965 a second mailing was made to those employers who had not replied to the original letter. The response to the mailings as of July 20, 1965 is shown in Table 2.1; the final column shows the total number of employers interviewed.

It should be noted that in the three large cities the employers were asked for interviews not only with themselves but also with three of their young employees. The lower degree of cooperation of employers in these cities undoubtedly was partly caused by this additional request.

TABLE 2.1

Response Rate to Mailings for Cooperation and Interviews Completed With Employers

City	Number Mailed	Yes Response 1st Mailing		Yes Response 2nd Mailing		Yes Response Total		Interviews Completed	
		N	%	N	%	N	%	N	%
Adams	90	42	47	13	14	55	61	55	61
Bakers	219	57	26	36	16	93	42	52	23
Clark	59	28	48	5	8	33	56	33	56
Kimball	273	49	18	44	16	93	34	91	33
Lewis	220	45	20	30	14	75	34	67	30
Miller	251	61	24	28	11	89	35	84	33
Pierce	737	84	11	54	7	138	19	66	9
Quinn	989	139	14	88	9	227	23	111	11
Randall	1027	144	14	59	6	203	20	99	10
Total	3865	649	17	357	9	1006	26	658	17

Selection of Personal Interview Sample

Because of the difficulties of following-up graduates directly in large metropolitan areas, the sampling technique used in the three large cities was different from the one used in the small and middle-sized communities.[1] These procedures are discussed separately below.

Approximately six hundred personal interviews with graduates of the years 1960-1964 were scheduled to be conducted in each community. Depending on the size of the community, an average of 300 vocational graduates was selected at random from lists supplied by the school systems. Names were selected from the preceding five-year roster of graduates to ensure the respondents had had an opportunity to have obtained some labor force experience. In addition, the number again depending on the size of the community, an average of 150 academic curriculum and 150 general curriculum graduates who entered employment were scheduled for personal interviews.

A sampling ratio was calculated for the graduates of each school who had not entered college by the fall of the year of their graduation, as identified by the yearly fall follow-up studies conducted by the schools. Fifteen hundred to 2000 names were desired for the total community: 600 contacts were expected from 900 names, 300 being ineligible due to migration, incorrect addresses, etc. The remainder were used in the mail questionnaire sample. Table 2.2 shows the relevant figures used in the initial selection of graduates. Table 2.3 shows the curriculum breakdown for the original list.

The estimate of completion rates proved accurate; the actual over-all rate was 68 per cent, however, it varied widely by cities, as can be seen in Table 2.4.

The source of the employer lists was the state employment security office in each community which supplied listings of the major market employers. All the employers in the small and medium size communities were contacted.

Large Cities: Graduates and Employers

Because of anticipated difficulties of locating and interviewing graduates in large cities, it was decided to combine the graduate and employer interviews. In the three large cities, the letter sent to secure the cooperation of the employer asked if three young employees could be interviewed on company time in addition to requesting an employer interview. This additional request undoubtedly accounts for the lower number agreeing to cooperate in the three large cities. The cooperation rate was 21 per cent in the large communities; in the other six cities it was 39 per cent.

As in the small and medium sized cities the lists of employers were obtained from the state employment security office. In Pierce all employers

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[1] Despite the difference in technique, the data obtained in the large cities were quite similar to the direct follow-up data obtained by mail questionnaire, suggesting that the different technique did not bias the results. For a fuller comparison, see the section in this chapter that compares the data obtained from the personal interview and the mail questionnaire.

TABLE 2.2

Universe of Graduates 1960 to 1964 and Ratio Used to Select Initial School Sample

School	Total 1960-64 Graduates	Number Entering College	Number Eligible for Sample	Sample Ratio	Number Selected
Adams	3947	943	3004	1/2	1494
Baker	2879	1111	1768	1/1	1806
Clark	1908	875	1033	1/1	1037
Kimball					
School 1	3309	1010	2299	1/2	1050
School 2	1445	259	1186	1/2	517
Lewis					
School 1	937	376	561	1/2	287
School 2	1921	402	1519	1/3	500
School 3	372	12	360	1/1	354
School 4	737	104	636	1/2	310
Miller	3820	1131	2689	1/2	1284

TABLE 2.3

Number of Graduate Cards by Curriculum Sample Ratio, and Number Sent in Original Mailing

School	Curriculum	Graduate Cards By Curriculum	Sample Ratio	Original Mailing
Adams	Academic	197	1/1	197
	General	209	1/1	209
	Vocational	1088	1/2	494
Baker	Academic	350	2/3	225
	General	825	1/3	225
	Vocational	536	7/8	450
Clark	Academic	134	1/1	134
	General	303	5/6	255
	Vocational	600	6/7	511
Kimball	Academic	124	1/1	124
	General	233	1/1	233
	Vocational	1200	1/2	543
Lewis	Academic	215/	3/4	167
	General	250	4/5	179
	Vocational	672	1/2	332
School 4 (Lewis)*	Academic	81	3/4	58
	General	71	3/4	46
	Vocational	158	3/4	118
Miller	Academic	266	1/1	266
	General	500	1/2	225
	Vocational	518	1/1	450

Note: In cases where the sampling ratio yielded too many for mailing, the extra cards were withdrawn at equal intervals from those selected.

* School 4 was not included with other Lewis schools because of its distance from them.

TABLE 2.4

Interview Completion Rate in Small and Medium Size Cities

City	Number Interviewed	Number of Substitutes	% Original Sample Interviewed
Adams	599	171	71
Baker	308	115	62
Clark	516	116	78
Kimball	594	120	80
Lewis	407	186	54
Miller	407	212	47
Total	2831	920	68

were contacted. A stratified sample of the employers in Quinn and Randall was selected. Employers were grouped by major Standard Industrial Code classifications. The percentage of the labor force in each of the classifications was calculated and employers were selected from that classification in proportion to its contribution to the total labor force.

Because it was thought that many vocational graduates are employed in smaller businesses, 10 employers, in addition to the major employers selected in Pierce, Quinn, and Randall were randomly selected from the yellow pages of the telephone books for each of the following categories: auto dealers, beauty shops, commercial laundries, bakeries, commercial artists, cabinet makers, radio and TV repairs, sheet metal shops, tailors, and print shops.

Those employers who agreed to cooperate were contacted by interviewers who specified the type of employee desired for interviewing. Graduates of the years 1960 and 1964 from selected high schools were requested. If graduates who fit these criteria were unavailable, other graduates of the cities' schools were selected.

This technique was successful in Quinn and Randall, but in Pierce it did not yield enough interviews. A direct follow-up similar to that conducted in the six smaller cities was initiated. This proved successful and the number of interviews obtained in Pierce was increased to offset the lower number realized in some of the other sample cities. In Quinn and Randall it also proved necessary to obtain some direct follow-up interviews for trades not usually encountered when the interviewers visited the graduates' place of employment.

Since the mail survey reveals that the data obtained by the two sampling techniques were consistent, the data were combined. The total number of interviews is shown in Table 2.5. Total usable interviews for all cities are shown by curriculum in Table 2.6.

TABLE 2.5

Interviews Completed in Large Cities

Pierce	Quinn	Randall
1249	557	624

TABLE 2.6

Usable Interviews by Curriculum

				General Curriculums					
Vocational		Academic		Regular General		General Business		Total General	
N	%	N	%	N	%	N	%	N	%
2111	41	1047	20	895	17	1128	22	2023	39

Unions

The lists of unions were not randomized or controlled. Nominations from the local contact in the school system were relied upon. Five to ten names were requested in the small cities, ten to fifteen in the medium-sized cities, and fifteen to twenty in the large cities. In some cases this method was not successful. Either the school officials did not know the unions or did not know where to obtain a list of them. A few of the interviewers successfully compiled their own lists. In any case, the rates of response, though varied, were low. Two methodological factors may be contributory: first, letters explaining the study and requesting cooperation were not sent to union officials; second, the procedure for obtaining names was not particularly effective.

SECTION II: DEVELOPMENT OF INSTRUMENTS

Program Evaluation Instruments

To provide for uniformity in the on-site assessment of the vocational programs, an evaluation instrument was developed consisting of items to be rated for each of the following areas: administration, vocational guidance, agriculture, distributive education, home economics, office occupations, technical education, trade and industrial education (boys and girls separate), academic area (including related subjects), and labor and management. The items, in the main, represented an adaptation of those developed for the Evaluative Criteria of the National Study of Secondary School Evaluation, and The Ohio Evaluation Criteria for Trade and Industrial Education.

There were 647 items, each with a five-point continuum from excellent to ineffective. For each of the content areas the instrument was broken down into sections: aims and objectives, physical facilities, instructional staff, instructional program, guidance placement and follow-up, socio-economic change, and general.

The instrument was subjected to several revisions based on pilot tests by a group of local directors from New York state who were undergoing training. During these pilot endeavors, vocational schools were visited and the instrument was used to evaluate the programs offered. Discussions were held on the various aspects of the offerings after each visitation and items that did not elicit reliable ratings from the several judges were modified.

In its final form the instrument, entitled Guidelines to Understanding a Vocational Program, was used by a visiting team to make uniform assessments of the nine communities participating in the study. The visiting team consisted of experts in each of the areas covered and the same (with one or two exceptions) team members visited all nine communities. See Appendix A for the names of the visiting team members. The following steps were repeated in each community:

1. Arrival on the site -- schedule of visitations announced.

2. Orientation to the program presented by the local representative the evening prior to the visit.

3. Visitations made; each team member following Guideline plan. Large communities visited a minimum of three days, medium-sized two days, and small one day.

4. A written report prepared (usually 6-10 double spaced typed pages) and submitted by each team member two weeks after visitation. The reports consisted of strengths and weaknesses found within the program and concrete examples were cited. Both written reports and Guideline booklets were made available for analysis.

Analysis was facilitated by punching the Guideline item ratings on IBM cards and computing the mean for each item, and a frequency count of item scores broken out by size of communities (small, medium-sized, and large) as well as an aggregate category score. The chi-square statistic was used as a test of whether the scoring of the small, medium-sized, and large communities was independent and inspection of the computer print-out readily showed the frequency of each item relative to the community size breakout.

The contents of the narrative reports were subjected to a content analysis which was carried out by two different judges. A high degree of correlation (.98) was found to exist between their decisions as to the relative strengths and weaknesses for each community.

Graduate Follow-Up Instruments

Three instruments were developed or chosen for use with the graduates who were personally interviewed: an interview schedule, a measure of work satisfaction, and a measure of how work values are reflected in jobs held.

The interview schedule had essentially two sections. One section asked a series of questions on attitude towards high school experience. These covered what was liked and disliked, called for an evaluation of counseling, and attempted to determine the relationships of the respondents to their classmates and to the school. Other questions on personal outlook on work, job aspirations, and demographic background and present status were also asked.

The major focus of the interview was on full-time jobs which the respondents had held since leaving high school. A job was defined to the respondent as one he had held for at least three months and worked at for at least 30 hours a week. This definition was deliberately chosen to limit the jobs to those to which the respondent had some real commitment. The three month limit excluded most seasonal work and the 30 hour limit excluded part-time work. Both seasonal and part-time jobs are more often taken to earn extra money and are usually not a part of a vocational plan.

For each job that met the study definition a number of questions were asked. These included: the type of job held, degree to which school training prepared for this job, how job was obtained, where it was located, type of organization worked for, starting and leaving pay, ratings of job satisfaction in five job areas, and reasons for leaving. Many of the questions contained in this section of the interview schedule were drawn from a similar instrument developed by Bournazos.[2] The schedule was pretested with respondents similar to those finally studied to assure that the questions were understandable and capable of being answered.

Job satisfaction was measured in two ways: the respondents' ratings (mentioned above) and through the use of a standardized instrument -- the Job Descriptive Index (labeled Job Description). The ratings were obtained by having the respondents look at a card and rate their degree of satisfaction on a seven-point scale. "One" was defined as meaning completely dissatisfied, and "seven" was defined as meaning completely satisfied. The respondents rated their satisfaction for the five areas listed on the card: work, pay, promotion, supervision, people (co-workers). These are the same five areas measured by the Job Descriptive Index.

The Job Descriptive Index was constructed by Smith and her associates at Cornell University.[3] It consists of lists of words and phrases that can be used to describe the five areas of the job. If the respondent feels a word does describe his job, he puts a "Y" for yes before it. If he feels it does not, he writes in an "N" for no. If he cannot decide, he inserts a "?". These responses are scored and summed. Each positive response is scored three. A positive response can be either a "yes" or "no" depending on whether the descriptive word reflects a favorable or unfavorable feature of the job. Negative responses are scored zero. Question marks are scored "one" for they tend to be associated with low satisfaction.[4]

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[2] Bournazos, K., Vocational Education: Its Effects on Career Patterns of High School Graduates, Educational Research Series Number 18, Michigan State University, Office of Research and Publications, College of Education, 1963.

[3] Kendall, L.M., Smith, Patricia C., Hulin, C.L., and Locke, E.A., Cornell Studies of Job Satisfaction: IV. The Relative Validity of the Job Descriptive Index and Other Methods of Measurement of Job Satisfaction. Ithaca, N.Y.: Cornell University, 1963. (mimeo)

The Job Descriptive Index was completed only for the job the respondent was currently holding or had last held. The respondents' ratings on the seven-point scale were obtained for all jobs held. The ratings for the last job held and the Job Descriptive Index measures for that job were analyzed for convergent and discriminant validity following the model proposed by Campbell and Fiske.[5] This model facilitates the analysis of an intercorrelation matrix to determine the degree to which different measures of the same variables actually are measuring those variables. This analysis was conducted for a subsample of males who were studied to test some hypotheses of self-concept implementation in vocational exploration. The results are presented in Chapter 11.

Chapter 11 also presents the data on the development and analysis of the measure of work values (the Job Rating Scale) used to study self-concept theory. This instrument was used with a randomly selected one-quarter sample of the males interviewed. The additional information obtained and the work histories of these respondents were more intensively analyzed to test some hypotheses concerning the transition young people make from high school to regular employment. The hypotheses were drawn from Super's[6] self-concept theory of vocational development. The rationale, hypotheses, results, and discussion of this aspect of the study are presented in Chapter 11.

A mailed questionnaire, essentially a simplified and shortened version of the personal interview schedule, was also developed. This questionnaire contained an additional series of questions on geographic mobility that was not included in the personal interview form. The mailed questionnaire represented partly an attempt to reach the more mobile graduates who were not available for personal interview. It also served to check on the extent to which the statistics derived from the personal interview sample were representative.

It may be helpful to summarize the use of these instruments in a typical interview. If the respondent was one of the males who had been selected to receive the work values scale, the interviewer briefly introduced the purpose of the study and gave the respondent the Job Rating Scale (Ideal) to complete. This form is largely self-administering and the interviewer gave help only as it was needed. When the respondent had completed the Job Rating Scale, the interviewer asked and recorded the answers to questions related to the respondent's work experience. A post-high school work history sheet was completed for each job that met the study definition. When these were completed, the interviewer gave the respondent the Job Description booklet to fill out.

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[4] Locke, E.A., Smith, Patricia C., and Hulin, O.L. Cornell Studies of Job Satisfaction: V. Scale Characteristics of the Job Descriptive Index. Ithaca, New York: Cornell University, 1963, (mimeo).

[5] Campbell, D.T. and Fiske, D.W. Convergent and discriminant validation by the multitrait-multimethod matrix. Psychological Bulletin, 1959, 56, 81-105.

[6] Super, D.E. A theory of vocational development. American Psychologist, 1953, 8, 185-190.

As the respondent was filling in the booklet, the interviewer copied the job titles and dates for each job the respondent had held on to a separate Job Rating Scale (Actual). He then gave these scales to the respondent to rate in a predetermined randomized order. A different random order was assigned to each interviewer to counteract any order effects in responding to the scales. When the respondent had completed a scale for each job held, the interviewer returned to the questionnaire and proceeded through the remaining questions. Separate sheets containing military service record, and post-high school education-training history, were used as needed.

A fourth instrument was used in the evaluation of the work experiences of the graduates. This was the Supervisor's Rating Scale that was completed by the direct supervisors of the graduates interviewed. This form was adapted from one developed by the Ohio Trade and Industrial Education Service, The Ohio State University. The form listed four general areas of worker performance. The areas were: occupational knowledge, manipulative skills, personal and social qualities, and work qualities and habits. For each of these areas, the supervisor rated four or five specific traits. The scale also listed two overall ratings: one on overall job performance and one on overall preparation for the job.

The rating points were defined as unsatisfactory, below average, average, above average, and outstanding. Because these scales were used to rate a wide variety of jobs, a "not applicable" response was permitted. The ratings were scored from one (unsatisfactory) to five (outstanding).

The respondent's permission was obtained before contacting the supervisor. The rating was then obtained by the interviewer, if the graduate interview had been obtained at the place of employment, or by mail.

Image of Vocational Education Instruments

Three instruments were used to assess the image of vocational education: a standardized attitude questionnaire and two interview schedules, one used with employers and one used with union officials.

The attitude scale was developed by Wenrich and Crowley at the University of Michigan.[7] It consisted of a 28 item Likert (summated rating) scale and two semantic differential scales. The items in the Likert scale were written and tested so that they evaluated vocational education. One of the semantic differential scales also had vocational education as its object of reference. The other was concerned with college preparatory education.

The Likert scale consisted of 28 evaluative statements about vocational education. The respondent indicated his degree of agreement with each statement on a five-point scale ranging from strongly agree to strongly disagree. The response favorable to vocational education was always scored high. The sum of the 28 item ratings was the respondent's score.

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[7] Wenrich, R.C., and Crowley, R.J. Vocational Education as Perceived by Different Segments of the Population. Ann Arbor: University of Michigan, 1964.

The semantic differential scales consisted of 20 pairs of polar adjectives, e.g., successful, unsuccessful. These words were selected because of their high evaluative content. For each pair the respondent indicated the degree to which he felt one of the pair described the attitude object. The responses were scored on a seven-point scale with the high score always representing an attitude favorable to the object in question. The sum of the 20 item ratings was the respondent's score.

Besides the 20-item scales, there were two "overall" ratings, using the same format as the semantic differential. These two items used the adjectives "favorable - unfavorable." Thus the questionnaire yielded five scores: three scores on vocational education -- a Likert score, a semantic differential score, and an overall rating; and two scores on college preparatory education -- a semantic differential score and an overall rating.

The attitude scale was left with the employers and union officials who were interviewed. They were asked to complete it and return it, in an envelope that was provided, to The Pennsylvania State University.

The interview schedule used with employers asked the respondent to detail the types of jobs for which he hired young people. The attitudes of employers concerning the performance of workers in these jobs were obtained. The employer was asked how he thought present and future skill needs would be supplied, what contacts he had with vocational education, and what opinions he held in some aspects of vocational education. He was also presented with some hypothetical hiring situations and asked to choose among workers with varying qualifications. These questions were all pretested before being included in the final form.

The schedule used with union officials included some of the same opinion and amount of contact questions asked of the employers. It also asked if the union had an apprenticeship program, and, if it did, the details of this program. Attitude towards young people as union members was assessed with the use of a Guttman-type scale.

Copies of all instruments are reproduced in Appendix D.

SECTION III: OBTAINING THE INTERVIEWS

Interviewers: Selection

Personal interviews constituted the major method of collecting data. Interviewers were contacted and hired by The Pennsylvania State University upon the recommendation of the school personnel. When about half the interviews were conducted, coordinators were hired for three communities when it became apparent that a responsible local agent would be necessary because of the high rate of turnover of interviewers. These coordinators were responsible for hiring and training additional interviewers on the basis of personal knowledge of the individuals approached. It was considered desirable in hiring interviewers to find people whose image to the graduates would be a non-authoritarian one. All of the interviewers fit this qualification.

Training

One-day training sessions for interviewers were held in central locations during May and June before the end of the 1964-1965 academic year, by The Pennsylvania State University personnel. Before the training session, each interviewer was given materials with which to familiarize himself. The trainer went over each form -- Graduate, Employer, and Union -- with the accompanying instructions, and conducted practice interviews to lend familiarity and experience to the interview procedures. Instructions were given on the sampling process, interviewer selection of respondents, and for the Job Rating Scale which was to be administered to every fourth male interviewed. All interviewers hired at later dates were briefed individually either by The Pennsylvania State University personnel or by a coordinator. A complete copy of the interview instructions is included in Appendix D.

Problems

Over two-thirds of the interviewers originally hired completed their assignments. However, there were problems inherent in the follow-up technique. Due to difficulty in reaching the people they were assigned, some interviewers became frustrated. A good deal of persistence was required to locate and talk to many of the graduates. Because little was known about the names drawn from school records, and because of the high mobility among some graduates, the completion ratio was somewhat low for a personal interview survey. As the interviewers were paid only for interviews completed, some abandoned the project and had to be replaced; most of those who did persist, however, found it to be an enlightening experience.

Resistance to interviewers was especially marked in two of the communities, due to local characteristics which have not been defined within the context of this study; hence the low response rates. It seems fair to say that this low ratio was due to local characteristics other than the quality of the interviewers. Due to the high resistance and the resultant high turnover rate of interviewers, a professional firm was hired to complete the interview sample. The Retail Credit Company, under a service contract, found the same difficulties with high resistance to granting interviews and produced little or no better results.

A third problem became evident when interviewers attempted to locate and interview labor leaders. Union officials were difficult to track down, and seemed reluctant to grant interviews. Even when interviews were conducted, many proved incomplete because the attitude scales, which were left by the interviewers to be completed by the official interviewed, were rarely returned. Whereas 52 per cent of these rating scales were returned by employers interviewed, less than five per cent were returned by union officials.

Verifying Interviews

To verify personal interviews post cards were sent to a randomly selected one out of every five graduates interviewed; 54 per cent of these were returned. There was no evidence of forging of any interview schedules. The returns of the attitude scales left with employers at the time of the interview verified those interviews. Wherever the attitude scales were not returned, post cards were sent requesting their return. No verification procedure was utilized in regard to the interviews with union officials, and no follow-up was attempted on the return of the scale left with those interviewed.

SECTION IV: THE MAIL QUESTIONNAIRE SAMPLE

The mail sample was surveyed to check the reliability of the data obtained from the personal interview sample and to assess the extent of geographic mobility among the graduates. Respondents who had moved from the county in which they had obtained their high school diploma were not followed up by the interviewers. However, if addresses were available, they were contacted by mail.

The first mailing was sent to 11,156 graduates. This sample was made up of those graduates who had moved and for whom new addresses were available plus either a random sample or the entire remaining list of the graduates who had not yet been contacted in a community. Because of the lower number of graduates in the smaller communities it was necessary to contact all graduates who had not gone on to college. In the larger communities a random sample was contacted. In response to both mailings a total of 3,342 questionnaires were returned, of which 3,192 were usable. The return by mailings by cities is shown in Table 2.7.

Comparison of the Mail and Personal Interview Data

The mail questionnaire represented a shortened version of the personal interview schedule. Questions that were not suitable for a self-administered questionnaire were eliminated. There remained 65 variables on which responses obtained by mail could be directly compared to those obtained by personal interview. For 36 of these 65 (55 per cent) there were no significant differences in any of the levels of the coded answers for any of the major curricula. The questions whose answers did not differ significantly are listed below. The number of variables each represents is listed after the question in parentheses.

Sample Characteristics

Father's occupation (1)
Mother's education (1)
Amount of money family had to live on (1)
Sex (1)
Race (1)
Type of home respondent lives in (1)

TABLE 2.7

Response to Mail Questionnaire by Mailings and Communities

City	Total Mailed	Response First Mailing		Response Second Mailing		Total Response	
		N	%	N	%	N	%
Adams	778	179	23	74	10	253	33
Baker	596	194	33	75	12	269	45
Clark	257	86	33	31	13	117	46
Kimball	1,125	257	23	81	7	338	30
Lewis	1,070	257	24	157	15	414	39
Miller	1,878	241	13	111	6	352	19
Pierce	1,856	252	14	135	7	387	21
Quinn	2,156	374	17	245	12	619	29
Randall	1,440	431	30	162	11	593	41
Total	11,156	2,271	20	1,071	10	3,342	30

Post-High School Work Experience

First and Last Job

- Number of months worked (2)
- Courses helped to prepare for job -- first, second, and third mentioned (6)
- Starting pay (2)
- Leaving pay (2)
- Hours worked per week (2)

Last Job Only

- Work satisfaction rating (1)

Post-High School Training

First and Second Program

- Type of program (2)
- Months in program (2)
- How training was obtained (2)
- Whether satisfied with program (2)

Career Plans and Counseling

Type job wanted while in high school -- major course code (1)
How much money do you think you or your family will have to live on? (5 years from now) (1)

Attitudinal

In general, did you like or dislike high school?(1)
Did you feel it was harder to take part in school activities because of the courses you took? (1)
How hard did you, yourself, try in high school to get the training necessary to be able to get a job? (1)
Do you feel you have more or less chance to get ahead than your parents did when they were your age? (1)
Which do you feel is more important in getting ahead, hard work or good luck? (1)

The comparability of much of the post-high school training and work history data indicated the statistics derived from the personal interview sample were representative of all respondents on whom data could be obtained. Many of the attitudinal responses and major demographic characteristics of the two samples were also very similar.

For 29 of the variables some of the levels of the coded answers were significantly different. At the end of this chapter these 29 variables are listed with each of the coded answers that were different. Any level that was not significantly different is not shown. It will be noted that even on these 29 variables only a small minority of the coded levels differed significantly. There are 386 possible response levels in the 29 variables. Only on 74 of these (19 per cent) were there differences in the samples for any of the three curricula or the total.

The major difference between the two samples was in their composition by cities. The respondents in the mail sample were older and more likely to be married and to be maintaining their own homes. In their work histories the mail respondents were more heavily represented in professional jobs for which academic training in high school was appropriate. Their job plans were oriented to professional occupations. However, they were a little less satisfied with their jobs, and more likely to reply they did not feel really a part of their schools. They did not earn any more money but they hoped to do so in the future.

These differences, however, should not be overemphasized. The similarity of the responses of the two samples greatly outweigh the differences. Conceding the differences in the two different data collection methods, and the lower than desirable completion rates, it appears that the data gathered in this study have considerable generality for the nine communities studied.

Characteristics of Geographically Mobile

This section analyzes the questions that were asked in the mail questionnaire concerning geographic mobility. The introductory question was: "After you graduated, did you ever move away from your home town to another city where you lived and worked for 3 months or longer?" If the respondent answered "yes" to this question, the directions instructed him to answer five other questions. The responses to these questions are presented below.

The proportion of graduates who reported moving was larger than one might have expected. A total of 775, or 24 per cent, of the usable responses said that they had moved from their home town for three months or longer. There were as many females as males who moved, and the percentages by curricula were fairly comparable: academic, 31 per cent; vocational, 24 per cent; and general, 22 per cent. Those respondents who moved as a per cent of the usable mail responses are shown in Table 2.8.

TABLE 2.8

Per Cent Geographically Mobile Respondents
by Sex and Curriculum

	Male			Female		
	Vocational	Academic	General	Vocational	Academic	General
	%	%	%	%	%	%
% Mobile	21	29	31	20	33	19
Total Number	732	467	321	505	461	706

Although this may seem like a considerable degree of mobility, these figures must be looked at more closely. For example, not all the moves were made to obtain jobs. Table 2.9 indicates the major reasons the respondents gave for moving.

Moving to obtain a job accounted only for 11 to 31 per cent of the mobility. There is undoubtedly some degree of job mobility, on the part of the husbands, reflected in the wives' "be with my husband" responses. Yet even combining all these responses with the "obtain a job" responses yields a range of 16 to 58 per cent who moved because of a job across the sex-curriculum classifications.

Table 2.9

Reasons Given by Respondents for
Moving from Their Home Towns After Graduation

	Males			Females		
	Vocational	Academic	General	Vocational	Academic	General
	%	%	%	%	%	%
Reasons						
Enter Military Service	41	23	51	3	8	8
Obtain a Job	31	15	24	20	11	19
Go to School	11	46	14	9	55	12
Be with Spouse	3	1	1	38	16	25
Be with Parents	3	2	-	5	2	3
Military Service of Husband	-	-	-	7	4	12
Live with Relatives	1	-	-	3	-	1
Others	11	11	9	14	4	18
Total	101	98	99	99	100	98
Number	93	83	69	68	103	96

About half of the respondents who moved returned to their home town (52 per cent). Fifty-eight per cent of the males returned, compared to 46 per cent of the females. This difference held across the curricula; for all three curricula, more males returned to their home town than females. Those who moved away had lived away from their homes a median of 16 months.

The distance of their moves were, for about three-fourths of the respondents, quite long. No attempt was made to calculate actual mileage, but the geographic areas of relocation were coded as shown in Table 2.10. About three-fourths of the respondents moved out of the state where they received their diploma and about half moved even further than adjoining states.

What at first, then, seemed to be a considerable degree of mobility in the mail sample appears on closer analysis to be somewhat exaggerated. Over half the mobility among the males was caused by school or service-connected reasons. Only about a fourth reported moving to obtain a job. Even if girls who moved to be with their husbands are included among the job caused moves, the figure for females increases only to 41 per cent. And about half of the respondents who did move returned to their home towns. Thus, while there was a total figure of 24 per cent mobility in the mail sample, at most only about eight per cent of the sample moved for reasons directly connected with civilian jobs.

TABLE 2.10

Geographic Area of Relocation by
Mobile Respondents

	Male			Female		
	Vocational	Academic	General	Vocational	Academic	General
	%	%	%	%	%	%
Same County Where Graduated	-	-	2	-	2	-
Not Same County But Same State	16	31	20	24	27	22
An Adjoining State	15	20	15	28	25	29
Farther Than An Adjoining State	68	49	63	48	45	49
Total	99	100	100	100	99	100
Number	115	125	80	90	139	123

SECTION V: SUMMARY

This chapter describes the details of the data collection for this study. The nine cities under study were selected to meet the criteria of size (population), labor force composition, type and quality of vocational programs, and geographic accessibility. Once the cities were selected, the school officials of these cities were contacted to request their cooperation. When this was obtained, lists of the graduates and employers to be interviewed were secured and letters were sent to request their cooperation.

Rating scales were prepared to evaluate each of the major vocational programs in the nine communities. These scales were used by an evaluation team composed of a group of educators, each of whom was an authority in the area he assessed, as well as representatives of labor and management. The evaluation team visited schools in each of the cities to observe the programs. Ratings and narrative reports were submitted separately for each program in each city.

During the visit of the evaluation team to a school, attitude questionnaires were distributed to the faculty. These questionnaires contained self-administered attitude scales that were designed to assess attitudes towards vocational and college preparatory education. Approximately 1,600 teachers completed and returned these questionnaires.

Personal interview schedules were devised for use with graduates, employers, and union officials. The graduate interviews were concerned with post-high school employment histories and attitudes towards high school experiences. These were completed with about 5,200 graduates. Approximately 650 employers were interviewed and were asked about the jobs for which they hired young people. They were questioned as well on their attitudes towards, and information about, vocational education. Ninety union officials were also questioned about attitudes and information was obtained on the relationships of their unions with the vocational programs. The attitudes of the union officials towards young people as union members were also explored.

The employers and union officials interviewed were asked to complete and return the same self-administered questionnaire that the teachers completed. Approximately half the employers and a few of the union officials returned the questionnaires.

Where possible, the separate instruments were tested for reliability either by the test-retest or split-half techniques. All of the instruments were pretested to assure the respondents could understand and answer the questions.

As a further test of the generality of the data gathered in the personal interviews, a similar sample of respondents was contacted by mail. Over 3,200 responses were received. For over half of the questions in the mail questionnaire, the results from the mail survey were the same as those obtained by personal interview. For those questions where there were differences, the differences were found for less than 20 per cent of the total coded response levels. In general, the personal interviews and returned mail questionnaires yielded very similar results.

The returned mail questionnaires also permitted a description of the geographically mobile respondents. Twenty-four per cent of the mail respondents reported living away from their home town for three months or longer. Most of these moves were for school or service-connected reasons. Only about eight per cent of the sample moved because of civilian jobs.

LEVELS OF VARIABLES WHICH SHOW "SIGNIFICANT" DIFFERENCES BETWEEN DATA GATHERED BY PERSONAL INTERVIEW (INTER) AND BY MAIL QUESTIONNAIRE (MAIL)

Characteristics of Sample

		Vocational		Academic		General		Total	
		Mail	Inter	Mail	Inter	Mail	Inter	Mail	Inter
		%	%	%	%	%	%	%	%
City of Respondent									
	Clark					5	14		
	Pierce	18	29	9	20	8	20	12	24
	Quinn			28	16	19	8	19	10
	Randall	27	15						
Curriculum				29	20	32	39		
Age									
	18 or Less	0	9	1	12	1	9	1	10
	23 And Up	24	15	20	10	24	12	23	12
Marital Status									
	Married	39	34			41	34	38	33
	Single	59	64			57	64		
Number of Dependents									
	None	58	68			60	69	63	70
	Two					15	9		
Maintain Own Home									
	Yes, Rent	32	23	30	22	34	22	32	22
	Do Not Maintain Own Home	49	63	58	69	48	65	50	65
Father's Education									
	7-9 Grade	32	27	23	17	32	26	30	25

Work History Data

		Vocational		Academic		General		Total	
		Mail	Inter	Mail	Inter	Mail	Inter	Mail	Inter
		%	%	%	%	%	%	%	%
First Job									
Major Course Code									
	Academic	56	10	65	22	52	13	57	14
	Business	8	24	12	29	22	34	13	29
D.O.T. Code									
	Professional			23	14				
	Clerical	29	16	40	53				
	Service	15	7						
	Non-specific Skill	15	28						
Work Satisfaction									
	Rating of 1	15	7					12	7
	Rating of 4	22	15			22	15	22	15
	Rating of 6	11	22			13	21	13	21
	Rating of 7					21	27		
Last Job									
Major Course Code									
	Academic	57	12	69	26	53	15	60	16
	Business	9	23	10	26	21	34	4	27
D.O.T. Code									
	Professional			29	18			17	11
	Clerical	30	14	38	54				
	Service	14	7						
	Specific Skill	17	25						
	Non-specific Skill	16	28					12	18

Training

		Vocational		Academic		General		Total	
		Mail	Inter	Mail	Inter	Mail	Inter	Mail	Inter
		%	%	%	%	%	%	%	%
First Program									
Hours Per Week									
	1-3.9	10	21			13	19	9	17
	4-7.9	19	32	11	18	12	24	14	25
	32+	35	10	33	15	37	15	35	13
Courses Helped to Prepare									
	None	31	24	26	16			30	24
	Yes, Course Not Listed	9	1			8	0	8	1
	English	2	12	7	27	3	14	4	18
	Mathematics	8	14			6	11		
Second Program									
Hours Per Week									
	0-3.9	8	27	15	20			14	22
	4-7.9	12	18	14	22	12	28	13	23
	32+	40	15	23	10	26	12	30	12
Courses Helped to Prepare									
	None	34	24						
	Yes, Course Not Listed	15	1	9	0			11	2
	English	3	18	9	23	3	11	6	18
	Mathematics	5	19			6	15	10	16

Counseling-Career

		Vocational		Academic		General		Total	
		Mail	Inter	Mail	Inter	Mail	Inter	Mail	Inter
		%	%	%	%	%	%	%	%
Discuss Course Choices									
	Yes					73	66	70	64
	No					25	33	30	35
Discuss Job Plans									
	Yes	37	28	57	40	49	32	47	32
	No	61	71	41	59	50	67	53	67
Job Wanted (In School)									
D.O.T. Code									
	Professional			26	32				
	Clerical	27	5			61	68		
	Manufacturing & Processing	35	51						
Job Wanted (Now)									
D.O.T. Code									
	Professional			41	26	15	8	22	12
	Clerical			14	35	47	62		
	Sales	25	4						
	Manufacturing & Processing	27	45	11	3				
Job Wanted (Now)									
Major Course Code									
	Academic			48	32			24	16

Counseling-Career - Continued

		Vocational		Academic		General		Total	
		Mail	Inter	Mail	Inter	Mail	Inter	Mail	Inter
		%	%	%	%	%	%	%	%
Job in 5 Years									
D.O.T. Code									
	Professional			31	21				
	DK & NA	46	19	44	54			51	44
Job in 5 Years									
Major Course Code									
	Academic			53	39			29	20
Job in 10 Years									
D.O.T. Code									
	Professional			35	16	12	5	19	12
	Managerial	8	17	8	2				
	Manufacturing & Processing	22	30			8	1		
	DN & NA	41	22	39	71	59	78		
Job in 10 Years									
Major Course Code									
	Academic			56	44	24	18	33	23
Money in 10 Years									
	$11,501 or More			38	29			28	21

Attitudinal

		Vocational		Academic		General		Total	
		Mail	Inter	Mail	Inter	Mail	Inter	Mail	Inter
		%	%	%	%	%	%	%	%
Feel Really a Part									
	Yes	73	86	74	86	73	82	74	84
	No	25	13	24	12	26	16	26	14
Feel School Made Effort									
	Yes	78	84	55	60			71	76
	No	20	12	42	35			28	20
Talking to Young Person									
	Same Course	59	54	69	57	60	49	62	53
	Gen-C P	13	3			14	4	11	3
	Depends on Person	5	10	5	10	5	9	5	10

PART II - THE EDUCATIONAL PROCESS

CHAPTER 3

VOCATIONAL EDUCATION AND COMMUNITY NEEDS

The primary purpose of vocational education, whether offered in a comprehensive or vocational school on the secondary or post high school level, is to provide students with skills and training to obtain employment.

The first place a high school graduate, armed with a recently bestowed diploma, seeks a job is usually in his own community. It was, therefore, essential that the socio-economic setting of the nine communities be examined in an effort to determine what factors the school boards and administrations had to deal with in providing educational programs designed to meet the requirements of the world of work. It is generally assumed that the philosophy and policies of vocational education are closely related to the manpower requirements in the immediate area, although it is known that vocational students migrate to other areas. Employment needs, curriculum offerings, and the interests and abilities of graduates are usually combined to form a logical basis for program offerings.

In the process of assessing vocational programs in small, medium-sized, and large communities, it was appropriate not only to observe them as they were at the time of the study but also to note, particularly, changes which had taken place since 1950 in such factors as population (growth and composition), employment, and occupational structure. In addition, a knowledge of the school organization, enrollment and the operations of the vocational programs, was desirable. A synthesis of data in these areas provides an answer to certain underlying questions:

1. What were the socio-economic settings of the communities and how was vocational and technical education at the secondary high school level related to these respective settings in small, medium-sized, and large communities?

2. How successful are the vocational schools in the placement of their graduates in occupations for which they were trained?

3. How well do the vocational and technical education offerings of the secondary schools meet the needs of the communities taking into account changes in the socio-economic settings?

The data on population, employment, occupational structure, and education in the nine communities included in the study were first analyzed by community size. The stratification of communities was based on population: 25,000 - 99,999 (small), 100,000 - 499,999 (medium-sized), and 500,000 and over (large), and the communities were assigned the code names: Adams, Baker, and Clark; Kendall, Lewis, and Miller; and Pierce, Quinn, and Randall, respectively. References to these codes are made throughout the following chapters. Detailed school enrollment figures of the small, medium-sized, and large communities can be found in Appendix B of this report. It is the purpose of this chapter to present the combined data to answer the three questions raised in the preceding paragraph.

SECTION I: THE SOCIO-ECONOMIC SETTING

What were the socio-economic changes which would affect the vocational and technical education programs offered at the secondary school level in the small, medium-sized, and large communities?

Population Trends

When the three-way stratification of the communities is made on the basis of absolute population in 1960, placing three communities in each size group, a general similarity is found in the inter-group range of population trends (percentage change, 1950-1960).

The range of population growth (or decline) was greatest among the small communities when the entire Standard Metropolitan Statistical Area (SMSA) was used as the reference unit. The magnitude of the growth rates of these communities, however, fell far below those of the other size classifications.

TABLE 3.1

RANGE OF POPULATION TRENDS IN ALL COMMUNITIES[a]

	Community Size		
	Small (N=3)	Medium (N=3)	Large (N=3)
SMSA Population (% change)*	-1.6 to 21.5	12.4 to 30.4	18.3 to 29.1
Urban Population (% change)*	-10.1 to 27.3	-10.8 to 1.4	-1.2 to -4.3
Total Population (000's) (1960)	30 to 69	266 to 492	876 to 2,000
% White (1960)	63.5 to 99.3	87.1 to 99.1	65.1 to 73.3
% Increase Non-White*	00.0 to 28.4	58.1 to 67.0	41.1 to 68.6
% 14 Under to Total (1960) Population	22.4 to 31.4	27.1 to 30.4	26.6 to 29.2
% 25 and Over with High School Diploma (1960)	26.7 to 37.0	35.8 to 40.0	28.1 to 36.2

[a] Source: U.S. Bureau of Census, 1960

*1950 to 1960

If the outer fringes of the SMSA's are eliminated, leaving just the urban cores, the large communities are found to have declined in absolute population during this period, as did several of the communities in the other size classes. In general, it is seen in Table 3.1 that there has been an outmigration of population from the urban cores to the suburban peripheries.

The proportions of the populations under 14 years of age and of those 25 years of age and over who have a high-school diploma are comparable among the communities. The relative increase in nonwhite population has been greater in the larger urban areas, as would be expected.

Employment Trends

The 1960 rates of unemployment were lower in the medium-sized communities (see Table 3.2) than in either of the other size classes. This is explained by a greater number of employment opportunities (relative to the labor force) in this group when compared to the smaller communities, and by the significantly smaller proportions of nonwhites in the labor force when compared to the larger communities. The variations found among the specific communities are due, in part, to unique local conditions.

The male-female composition of the labor force was found to be comparable among the communities in 1960, but the changes from 1950 varied widely. This again is explained by the unique circumstances affecting each community during this decade.

Occupational Distribution

The male and female occupational distributions are quite similar among the nine communities (see Tables 3.3 and 3.4). Special note should be made of the somewhat skewed picture in the "service" category for both males and females. This is explained in part by the recreational-vacation resort nature of one of the small communities. The substantial number of "not reported" males and females must be considered in interpreting these distributions. There were significant differences among the communities in their proportions of nonwhite populations.

As a result of this brief analysis of the degree of socio-demographic similarity, it can be stated that the problems confronting vocational and technical education at the secondary high school level are relatively similar regardless of the size of the community. Although differences do exist, when an overall examination is made of the data on population trends, employment trends, and distribution of employed, a general pattern emerges. The most striking difference among these size classifications is in the relative proportion of the population which is nonwhite and which must also be served by the secondary technical and vocational schools.

This leads to the next question: How well do the vocational and technical offerings of the secondary schools conform to manpower needs? To arrive at an answer to this question data on school enrollment and curricula must be brought into the picture.

TABLE 3.2

RANGE OF EMPLOYMENT AND UNEMPLOYMENT TRENDS IN ALL COMMUNITIES[a]

	Size of Community		
	Small (N=3)	Medium (N=3)	Large (N=3)
1960 Unemployment Rate[b]	4.8 to 5.9	3.7 to 4.1	6.5 to 7.5
1960 Unemployment Rate (nonwhite)[c]	[c] to 13.0	[c] to 7.6	8.9 to 10.7
% Change Employed Males 1950-1960	-22.5 to 19.0	3.5 to 21.5	-17.9 to -9.9
% Change Employed Females 1950-1960	11.0 to 37.0	20.3 to 31.7	-3.6 to 5.9
Work Force Composition:			
Employed Males 1960 (actual, 000)	58.0 to 65.8	64.4 to 69.7	63.1 to 65.2
Employed Females 1960 (actual, 000)	34.2 to 42.0	30.3 to 35.6	34.8 to 36.9

[a] Source: U.S. Bureau of the Census 1950 and 1960

[b] U.S. Rate (1960) = 5.6%

[c] Included in total unemployment rate due to small number of nonwhites in community.

TABLE 3.3

RANGE OF OCCUPATIONAL DISTRIBUTION OF EMPLOYED MALES IN ALL COMMUNITIES[a] 1960

		Size of Community		
		Small (N=3)	Medium (N=3)	Large (N=3)
1.	Prof., Tech.	4.5 to 13.2	9.4 to 13.8	6.4 to 10.0
2.	Manager, Off. Prop.	8.9 to 11.8	8.5 to 10.5	4.9 to 8.2
3.	Clerical, Sales	12.7 to 17.1	13. to 16.6	13.5 to 23.8
4.	Craft, Foreman	15.7 to 29.1	20.3 to 22.9	12.0 to 21.4
5.	Operatives	15.7 to 21.5	21.1 to 24.7	18.7 to 29.8
6.	Service, inc. Household	5.3 to 26.1	5.7 to 8.0	6.3 to 14.1
7.	Laborers, exc. Farm	6.6 to 9.5	4.9 to 8.8	6.6 to 9.8
8.	Farmers, Managers	1.3 to 12.0[b]	.1 to 1.8	- -
9.	Farm Laborers, Foreman	1.3	.2 to 1.1	.1 to 8.1
10.	Not Reported	1.9 to 9.0	2.8 to 4.3	6.4 to 8.1
	Employed Sales	7,600-15,800	70,100-131,000	220,400 - 498,000
	Nonwhite as % of Total Employed	.6 to 35.1	.7 to 10.0	22.3 to 29.7

[a] Source: U.S. Bureau of Census, 1960.

[b] Includes entire County - farm related occupations: 6%

TABLE 3.4

RANGE OF OCCUPATIONAL DISTRIBUTION OF
EMPLOYED FEMALES IN ALL COMMUNITIES[a] 1960

		Size of Community		
		Small (N=3)	Medium (N=3)	Large (N=3)
1.	Prof., Tech.	5.2 to 13.4	10.1 to 14.2	8.9 to 11.6
2.	Manager, Off. Prop.	2.4 to 3.7	2.1 to 3.1	2.3 to 2.7
3.	Clerical, Sales	26.8 to 39.0	30.0 to 44.6	36.7 to 38.0
4.	Craft, Foreman	1.0 to 2.4	1.0 to 1.4	1.2 to 1.4
5.	Operatives	12.4 to 20.7	17.6 to 37.1	14.4 to 20.6
6.	Service, inc. Household	19.[illegible] to 40.2	15.1 to 18.3	19.6 to 24.7
7.	Laborers, exc. Farm	0 to 1.2	.5 to .5	.4 to .8
8.	Farmers, Managers	- .5	0 to .2	- -
9.	Farm Laborers, Foreman	- .5	.2 to .5	- -
10.	Not Reported	2.4 to 10.3	3.2 to 5.0	6.8 to 8.4
	Employed Females	4,100-9,700	38,700-66,300	117,800 - 290,600
	Nonwhites as % of Total Employed	.7 to 41.2	.9 to 13.7	27.7 to 34.0

[a] Source: U.S. Bureau of the Census, 1960.

SECTION II: THE SECONDARY SCHOOL SETTING

The data concerning the secondary schools visited (Table 3.5) show that the size of the community itself bears no relationship to the size of the school. The largest average secondary school enrollment (2,725) per school, including all three curricula, was found in the small communities. Each small community had one comprehensive high school which enrolled all students in the community. Enrollments in the large cities, on the other hand, ranged from 343 to 3,410 students in the individual schools. For all practical purposes, the vocational high schools in the large cities could be considered area schools. They served a large sector of the city, if not the entire city, and, due to the selection procedures which had been established, were able to exert some control over enrollments.

The schools were predominantly organized along a three-year pattern, and the number of periods and length of each were found to be quite similar. In some cases, particularly in the large cities, the ninth grade students enrolled were those who had transferred from the parochial school system. Most of the students entered in grade ten.

Industrial arts offerings were generally available. Most schools used the industrial arts program as a "feeder" to the trade and industrial or technical curricula. In the large cities, some of the industrial arts offerings incorporated many features of trade and industrial education.

Enrollment

Although about 40 per cent of the girls and 60 per cent of the boys, it is estimated, were enrolled in academic programs, in no community did the percentage of persons employed in professional and technical occupations exceed 14.2 per cent.

When comparing enrollment by size of community, it was found that the small communities were actually providing a greater portion of their students with vocational offerings than either the medium-sized or large cities. (Table 3.6). This is especially true in the areas of distributive, technical, and trade and industrial (boys) education. It is not true of trade and industrial (girls) or home economics where the large cities showed higher proportionate enrollments. The medium-sized communities in this study show up poorly because one of them, which served the entire county, was limited by an inadequate physical plant. Therefore, comparison by size of community is not an adequate measure of how medium-sized communities are meeting the needs of students who are pursuing vocational and technical education. The data, however, more adequately reflect the situations in the other community groups included in this study.

The enrollment in agriculture on the whole was low. Vocational agriculture was completely absent in the offerings of the small communities. All the communities studied were exerting only meager efforts in the area of technical education.

The office occupations program had the largest enrollment of the seven vocational areas under study. Vocational agriculture, distributive education, and technical education each represented less than one per cent of the enrollment. Girls pursuing training in the vocational programs of home economics and trade and industrial education made up 10.0 per cent and 3.2 per cent, respectively, of the enrollment. Over 40 per cent of the total number of students in the nine communities in the study had taken some vocational courses. This figure includes office occupations and home economics. Only eight per cent, however, were enrolled in programs which can be described as traditional vocational education, exclusive of office occupations.

TABLE 3.5

SECONDARY SCHOOLS - ALL COMMUNITIES[a]
1964-65

	Size of Community		
	Small (N=3)	Medium (N=3)	Large (N=3)
Enrollment[b]	7,269	23,522[c]	115,943[d]
Number Schools Visited	3	7	15
Type of School			
Comprehensive	3	6	8
Vocational	0	1	7[e]
Number of Years			
Three	2	4	11
Four	1	3[f]	4
Periods in Day	7-9	7-8	7-9
Length of Period (Minutes)	42-50	40-50	40-45

[a] Source: Data provided by school administration to visiting team.

[b] Computed grades 10-12.

[c] Enrollment in 7 schools visited = 10,898 (including 827 grade 9).

[d] Enrollment in 15 schools visited = 26,209.

[e] Includes 2 schools classified "comprehensive" in Quinn.

[f] Two actually had grades 7-13.

TABLE 3.6

PER CENT ENROLLED IN VOCATIONAL PROGRAMS BY COMMUNITY SIZE (1964-65)

		Agriculture				Distributive Education				Technical Education			
		Small	Medium	Large	Total	Small	Medium	Large	Total	Small	Medium	Large	Total
	Grade	%	%	%	%	%	%	%	%	%	%	%	%
Boys	9										1.4		
	10									5.8	1.4		
	11									4.1	1.0	.5	.8
	12		.1	*	*	2.1	1.3	.2	.5^{a}	3.1	1.1	.4	.7
Girls	9												
	10									1.2	0.1		
	11									1.0	*	*	*
	12			.0	.0	2.1	1.4^{a}	.2^{a}	.5^{a}		0.0	*	*
Totals (10-12)			*	*	*	2.1	1.3^{a}	.5^{a}	.7^{a}	2.5^{b}	1.0^{c}	*	.4

(continued)

TABLE 3.6 (continued)

PER CENT ENROLLED IN VOCATIONAL PROGRAMS BY COMMUNITY SIZE (1964-65)

		Trades & Industrial (Boys)				Trades & Industrial (Girls)				Office Occupations			
		Small	Medium	Large	Total	Small	Medium	Large	Total	Small	Medium	Large	Total
	Grade	%	%	%	%	%	%	%	%	%	%	%	%
Boys	9												
	10												
	11	23.0	10.1	8.9	9.8								
	12	18.4	8.7	6.3	7.3					13.0	8.3	13.0	6.0
Girls	9												
	10						0.3						
	11					2.9	0.8	3.5	3.0	-	-	-	-
	12					3.8	0.7	2.7	2.4	49.3	44.5	58.1	51.0
Totals (10-12)		22.1	8.3	8.7	9.4	2.4	0.9	3.9	3.2	31.5[a]	30.0[a]	30.0[a]	22.7[a]

Sources: Data provided by School Officials -- Vocational home economics could not be identified from general home economics.

[a] Data not complete -- projected data to include vocational enrollment only.

[b] Boys and girls.

[c] Boys only.

*Less than .1%.

Placement

The data submitted by the schools suggest that a substantial effort is being made on placement directly into the occupation trained for or one closely related to it (Table 3.7). The one exception was in the area of technical education where a substantially larger percentage of graduates from the large city was directly placed in jobs, and fewer went on to higher education. In the medium-sized communities the data showed the reverse. Moreover, the small communities appeared to account for larger numbers of graduates found in the unrelated or the unavailable category.

As might be expected, the large communities had the greatest number of graduates for which no accounting could be made. The aggregate total of graduates from the six areas of vocational and technical education in 1964 numbered 13,900 out of approximately 44,400 graduating seniors, or 30 per cent (excluding home economics graduates who were not prepared for employment, but including office occupations which made up about two-thirds of this group). In other words, only 30 out of every 100 graduates of the programs included in the study were prepared for employment through a vocational or technical curriculum. Five or six out of every ten students who did complete vocational programs were placed in the mainstream of employment for which they were prepared, according to the school data. However, as pointed out in Chapter 6, the data obtained from interviews with graduates reveal that the proportion was lower.

Table 3.7 shows that approximately four to six per cent of the vocational graduates went on to higher education. This excludes those graduates who pursued the technical education programs where approximately one out of every four continued education beyond the high school offering.

The placement ratio (excluding Armed Forces) of the graduates in all programs was high. (Table 3.7). The home economics placement data were not reported since little attempt was made in that program to place and follow graduates. The large number of technical education graduates going on to higher education (approximately 25 per cent), considerably reduced the total available for immediate employment.

The Adequacy of Vocational Offerings

The number of vocational programs varied significantly with the largest deviation found in the trade and industrial area (Table 3.8). Clarification is lacking as to the exact number of programs specifically designed with a vocational objective in the areas of home economics and office occupations. Only those programs supposedly receiving state reimbursement as vocational programs are included in the home economics area of this study, but here the data are weak. The office occupation programs indicate total programs designed for such occupations and not single courses of an avocational nature. But, again, it is cautioned that the data are weak in terms of a clear distinction between enrollment with a vocational objective as proposed to the taking of single courses for personal or other reasons.

Table 3.9 shows the relationship between occupational distribution and vocational offerings. It is at this point that the question, "How well do the secondary schools' vocational and technical offerings conform to manpower needs?", can be considered.

TABLE 3.7

PLACEMENT OF VOCATIONAL GRADUATES BY PROGRAM BY COMMUNITY SIZE (1964-65)

	Agriculture				Distributive Education				Technical Education			
	Small	Medium	Large	Total	Small	Medium	Large	Total	Small	Medium	Large	Total
	%	%	%	%	%	%	%	%	%	%	%	%
Placed in Occupation or Related Occupations	-	66.7	-	80[a]	74.0	79.0	58.8	70.3	14.3	21.6	64.3	38.3
Armed Forces	-	16.7	-		8.0	10.0	17.6	12.4	31.4	21.6	19.6	23.4
Higher Education	-	0.0	-		10.0	4.0	6.2	6.0	20.0	43.2	16.1	25.0
Unavailable or Unrelated	-	16.7	-		8.0	5.0	7.2	6.4	34.3	8.1	0.0	11.7
Unemployed	-	0.0	-		0.0	0.0	2.1	0.8	0.0	0.0	0.0	0.0
Unaccounted For	-	0.0	-		0.0	2.0	8.2	4.0	0.0	5.4	0.0	1.6
Number of Graduates (1964)	-	6	107	113	50	102	97	249	35	37	56	128

	Trades & Industrial (Boys)				Trades & Industrial (Girls)				Office Occupations			
	Small	Medium	Large	Total	Small	Medium	Large	Total	Small	Medium	Large	Total
	%	%	%	%	%	%	%	%	%	%	%	%
Placed in Occupation or Related Occupations	42.0	68.6	71.7	67.2	88.0	84.8	85.0	85.2	64.3	75.5	64.9	67.2
Armed Forces	21.0	14.9	13.4	14.7	2.0	0.0	0.3	0.4	1.7	4.0	1.6	2.1
Higher Education	5.0	5.0	4.3	4.5	0.0	15.2	7.0	6.8	11.9	7.8	6.5	7.6
Unavailable or Unrelated	28.0	9.6	3.3	7.6	6.0	0.0	1.8	2.1	6.7	6.4	6.6	6.6
Unemployed	2.0	0.0	0.8	0.8	0.0	0.0	2.6	2.1	0.0	0.0	0.1	0.1
Unaccounted for	1.5	1.9	6.7	5.2	4.0	0.0	3.6	3.4	15.3	6.4	20.2	16.4
Number of Graduates (1964)	199	261	1022	1482	52	33	387	472	404	580	1666	2650

Source: Data provided by school officials. Vocational home economics could not be identified from general home economics.

[a] Data not complete -- projected data to include vocational enrollment only -- all schools.

TABLE 3.8

Number of Vocational Areas in Schools Visited
All Communities[a] 1964-65

	Size of Community		
	Small (N=3)	Medium (N=3)	Large (N=3)
Vocational Agriculture	0	1	3[b]
Distributive Education	2	5	8
Home Economics	3[b]	6[b]	8[b]
Office Occupations	3[b]	6[b]	12[b]
Technical Education[c]	3	5	4
Trade and Industry Boys[c]	12	17	30
Trade and Industry Girls[c]	3	3	9
Evening Pre-Employment	2	2	3
Evening Upgrading	3	3	3
Total	31	48	80

[a] Source: Data provided by school administration to visiting team.

[b] Not all vocational.

[c] Number of different programs in vocational area.

Table 3.9 indicates a rather poor relationship between the occupational distributions actually found in the three settings (small, medium-sized, and large communities) and enrollments in the various offerings. In fact, it appears that little consideration and planning had been given to assure a proportionate relationship between enrollment and vocational offerings and occupational needs as reflected by 1960 Census data.

TABLE 3.9

Median Per Cent Occupational Distribution[a] and Per Cent Enrollment in Vocational-Technical Offerings[b] - All Communities

	Prof. Tech.			Clerical Sales			Manager, Off. Prop.			Craftsmen-Foremen & Operatives			Service & Household			Farmers, Mgs., Labor, & Foreman		
Communities by Size	Employed	College Prep. and Tech.	Difference	Employed	Office Occupations[c]	Difference	Employed	Distributive Ed.	Difference	Employed	Trade & Ind.	Difference	Employed	Home Economics[d]	Difference	Employed	Agriculture	Difference
Males																		
Small	7.0	54.2	+47.2	16.5	8.5	- 8.5	11.8	2.1	-9.7	15.7	22.1	+ 6.4	6.3	-	-6.3	2.1	-	-2.1
Medium	12.4	21.0	+38.6	14.3	5.4	- 9.9	10.1	1.3	-8.8	21.1	8.3	-12.8	5.8	-	-5.8	1.1	0.1	-1.0
Large	9.0	50.5	+41.5	17.9	4.0	-13.9	6.5	0.2	-6.3	19.3	8.7	-10.6	9.1	-	-9.1	e	0.5	-
Females																		
Small	12.2	41.0	+28.8	26.8	33.8	+ 6.2	3.7	2.1	-1.6	12.4	2.4	-10.0	22.0	10.0	-12.0	e	-	-
Medium	10.8	40.0	+19.2	38.8	27.0	-11.8	2.9	1.4	-1.5	19.1	0.9	-18.2	15.1	12.0	- 3.1	0.3	-	-0.3
Large	9.9	40.0	+30.1	36.8	38.2	+ 1.4	2.5	.2	-2.3	18.3	3.9	-14.4	24.3	16.0	- 8.3	e	-	-

[a] Source: U.S. Bureau of Census 1960.

[b] Source: 1964-1965 Enrollment data supplied by schools.

[c] Adjusted for non-vocational -- two-thirds of reported enrollment.

[d] Estimated -- vocational only.

[e] Less than 100 reported in Census Data.

The enrollment in the college preparatory track reflected an overemphasis by a large percentage when compared with the proportion of workers in professional and technical occupations. It should be pointed out that there still exists a shortage of technically-prepared employees, which is not clearly revealed in the table. All of the other occupational categories, with the exception of "craftsmen-foremen and operative" in the small communities, and the "clerical-sales" in the large communities, showed limited enrollment.

When the "managerial-proprietor" category was examined in relation to the distributive education enrollment, a decided shortage showed up. This is, of course, assuming that distributive education was geared to a high level of management and proprietor preparation and that not too many of its graduates were stifled at the sales level in career development.

The "craftsmen-foremen and operative" category, when compared to trade and industrial education enrollments in the small communities, showed a plus on the enrollment side for boys. This may indicate that a substantial effort was being made in the trade and industrial education area for "mechanical" type offerings. The effort in trade and industrial education for the medium-sized and large communities (boys) was decidedly inadequate.

Girls' enrollments in trade and industrial education offerings of a "craftsmen-foremen and operative" type fell short of meeting the needs in all the communities. It is assumed that light manufacturing in most of the communities included in the study accounted for the large numbers of women employed in this occupational classification.

The service occupation category has often been indicated as an expanding occupational category. But here again (and even if the benefit of doubt is given that home economics does provide preparation for the women's service occupations, which was highly questionable at the time of the study), enrollment fell short of need. The almost complete void of vocational agriculture was reflected in the last comparison.

The number of persons employed as "farmers, managers, laborers, and farm foreman" was quite limited. This is especially true in the urban areas where it probably is difficult to identify related occupations, such as a landscaper and nurseryman. Nevertheless, the admittedly small employment shown in Table 3.9 is not being met in any way with appropriate agricultural enrollments at the secondary school level.

SECTION III: SUMMARY AND CONCLUSIONS

The data assembled on the profiles of the communities, the enrollments in the schools, and the placement of graduates within those communities lead to the following conclusions:

1. Although nine communities (three small, three medium-sized, and three large) were empirically selected as cases for the study, they were very similar in composition of population, including the proportions of white to nonwhite populations, number of children 14 years of age and under, educational preparation, employment trends, and distribution of employment by occupations.

2. Even though the populations of the communities studied varied significantly, the sizes of the individual schools included in the study were comparable. The small communities operated large schools so that the problem of sound educational programs, including vocational offerings, was comparable regardless of the size of the community.

3. The meager effort, measured in terms of the relationship of enrollments to student population being put forth to provide vocational and occupational education makes it apparent that substantial numbers of young people must eventually end up in jobs for which some form of skill training was not provided by their schools.

4. Although the placement rates of the vocational curriculum graduates are high, the small proportion enrolled negate any impact on manpower needs. The placement record neither supports nor denies the adequacy of the vocational offerings and at best it simply indicates an awareness that placement is an important aspect of the total program.

5. There is little, if any, relationship between the proportions of enrollment in the various vocational programs and the occupational distributions in the communities. It is obvious that knowledge relative to occupational distributions on the part of local school leadership is lacking, and that offerings (as evidenced by enrollments) are not attuned to the present manpower picture.

6. The larger communities offer training in significantly more vocational areas, as compared with the other communities reflecting, to a large extent, their greater resources and the greater employment opportunities in a large metropolitan area.

CHAPTER 4

ADMINISTRATION, GUIDANCE, AND COMMUNITY RELATIONS IN VOCATIONAL EDUCATION

In the preceding chapter the socio-economic settings of the nine communities, classified by size, were described. In addition, the vocational education curriculum was analyzed in terms of the extent to which vocational education had penetrated the school population and the extent to which vocational education was presenting programs to meet the broad occupational needs of the communities. In general, it was found that the penetration of the vocational education curriculum in the school population was limited and that the curriculum was unrelated to the occupational needs of the communities.

The purpose of this chapter is first, to analyze those aspects of vocational education which do not concern themselves with the specific content of the programs -- administration, instructional program, physical facilities, and instructional staff -- for each of the three groupings of the communities, by size. The variable of size of city was used because in some areas it was found to be significant. Second, an analysis is presented of the overall administration of vocational schools, vocational guidance, the use of advisory committees, and the reactions of the labor and management members of the visiting team.

Each phase of these activities was analyzed by calculating a mean rating for each of the seven categories (administration; aims and objectives; physical facilities; instructional staff; instructional program; guidance; placement and follow-up; and socio-economic change) and a mean rating for each of the 647 items which made up the evaluative instrument. These mean ratings were used to compare the major differences among the small, medium-sized, and large communities, as seen by the visiting team of experts.

The purpose in setting forth these ratings is to give vocational education administrators an opportunity to compare their curriculum and programs with those which were surveyed. In this way they can have some yardsticks against which they can evaluate their own programs.

SECTION I: STRENGTHS AND WEAKNESSES BY COMMUNITY SIZE

Small Communities

Administration. The small communities showed the greatest number of strengths in administrative structure, policy, and practices. An analysis of their strengths indicated:

1. The administration was more aware of the importance of good public relations.
2. The administration believed more in sound coordination between academic and related subjects and shop instruction.
3. The administration encouraged and promoted more in-service professional improvements (formal and informal).
4. The administration was more alert to the importance of providing adequate and proper supplies.
5. The administration provided effective maintenance.

It is apparent by mere observation that there was a relationship between these administrative strengths and the dedication of the instructional staff, the quality of the programs, and the extent to which vocational education is part of the total educational effort. In a like manner, when relationships between program and aims and objectives, aims and objectives and facilities, facilities and program, and program and guidance were examined, the small communities invariably ranked high.

Those in high administrative positions in the small communities were more favorably disposed toward vocational education and more willing to promote it in their schools. This attitude was not necessarily conveyed to the teachers of academic subjects, a point which is discussed in Chapters 7 and 8. It should be remembered that each small community had a relatively large comprehensive high school, and the administration was making an effort to coordinate the various subject areas.

Instructional Program. There was by far a greater number of strengths in the instructional programs conducted in the small communities than in the medium-sized and large communities. Individual items which were rated high included:

1. Courses of study were up-to-date.
2. Sufficient repetitive practice was provided.
3. Time allotments were adequate.

4. There was a strong relationship between theory and practice.

5. Instructional materials were organized effectively.

6. Progress charts or similar techniques were employed.

7. Individual instructional materials were available.

It was in the small communities that the largest percentages of students were taking advantage of the vocational offerings. This was particularly true of the boys; 22 per cent were enrolled in trade and industrial programs alone. A substantial percentage of these boys was receiving skill training in high school. This proportion appears particularly significant in view of the fact that two of the small communities were faced with declining male employment. The graduates of vocational programs in these communities were far better equipped to make their way in a competitive job market.

Although quality vocational education was being extended to large numbers of students, the breadth of the programs was considerably limited. For instance, there seemed to be over-emphasis on training auto mechanics when compared to the ability of the communities to absorb them indefinitely.

With the exception of business education (including distributive education), and to some extent home economics, vocational education for girls did not exist in two of the small communities included in the study. There were no trade and industrial programs for girls although over one-third of the work force in 1960 was made up of women.

The administration encouraged and promoted in-service professional improvement, both formal and informal in nature. With this encouragement the staffs in the smaller communities would be expected to be rated high in terms of keeping current with their technology. The small communities' staffs did show strength in these areas. They were:

1. Conversant with changing employment opportunities.

2. Sensitive to needs for in-service improvement (up-dating).

3. Alert to socio-economic factors affecting instructional programs.

4. Active in professional organizations.

Regardless of the vocational program observed, the vocational teachers appeared extremely well qualified. In spite of being handicapped in some cases by extremely poor physical facilities, they were a dedicated group, well prepared educationally for their positions. They appeared to see the relationship between changes which were taking place in their communities and the instructional programs in which they were involved.

Summary. This study indicates that it is possible to have a quality vocational curriculum in a community with a population of 25,000 to 100,000. But the curriculum was lacking in the breadth of offerings. It is apparent, however, that there are some inherent strengths that go with the vocational programs in the smaller-sized communities. Certain questions remain: What causes these strengths to diminish when the community increases in size, and must this happen? The answers to these questions are found in the discussion below on the larger communities.

Medium-Size Communities

Administration. The greatest variety of administrative organizational patterns was found in the medium-sized communities. Although most of the schools visited were comprehensive in nature, one community operated under a county vocational school system where the vocational director was, in effect, the superintendent of the school and was responsible directly to his own board of education. In this particular case, the board of education was well versed in the aims and objectives of vocational education.

Although the schools in the medium-sized communities did not, as a group, demonstrate many administrative strengths, they were highly rated on certain items:

1. The administration was alert to the importance of providing adequate and proper supplies and up-to-date equipment.

2. The administration believed in a policy of effective maintenance of equipment with a minimum of red tape.

3. The administration established salary schedules that were conducive to hiring well qualified vocational personnel.

It will be noted that two of these strengths were also found in the small communities, but it was only in the medium-sized communities that salary schedules appeared to be universally good. .All too frequently, the salaries were considered only "fair."

The greatest range in ratings of administration was found in the medium-sized communities. The lack of uniformity in the administrative organizations themselves was also found in the ratings which ranged from "non-existent, but needed" to "excellent" on many of the individual terms. Neither the type of school (comprehensive or vocational) nor the relative stability of the community appeared to be factors in the ratings. All things considered, administrative strengths outnumbered the weaknesses about two to one, but very few strengths were found in all schools in the three medium-sized communities.

Instructional Program. In all too many cases the instructional program in the medium-sized communities was narrowly conceived. Where a wide variety of programs was offered, the quality was less than adequate. Students had not been attracted to some of the programs in sufficient numbers to fill all of the available work stations. As has been previously pointed out, the percentage of students enrolled in vocational programs were smallest (5.7 per cent) in the medium-sized communities. Even with the inclusion of the three schools in Lewis which provided courses in distributive education, the impact of vocational education upon the economies of the medium-sized communities was minimal. The one exception to this statement may have been Kimball, although it did not alter the overall picture substantially.

Although census data indicated substantial increases in the percentage of employed women in the 1950-1960 period, girls had not been attracted to the few trade and industrial programs which were offered, nor did the numbers enrolled in office occupations seem sufficient to provide the necessary workers for the clerical and sales occupations.

Physical Facilities. Although the physical facilities varried from school to school (even within the same community) and from one vocational program to another, the best overall physical facilities were found in the medium-sized communities. In only one shop area were the facilities rated low. More than 50 per cent of the shop areas were rated "excellent."

Items on which the medium-sized communities revealed particular strengths were:

1. Overall size and location of classroom, laboratory, and shop facilities.
2. Up-to-date hardware and tools.
3. Facilities that lent themselves to reorganization in light of technological progress.
4. Adequate work stations both in number and space.
5. Well-planned and adequate washing and clothes-changing facilities.

The term "physical facilities" includes both plant and hardware. As has been previously stated, the administrative strengths in medium-sized communities were their willingness to provide adequate and proper supplies and to maintain both plant and equipment. In some cases the excellent quality and quantity of the hardware and equipment served to offset what would otherwise have been considered limitations or deficiencies, such as poor layout or amount of storage space in the plant itself.

Inasmuch as some of the facilities were under-utilized, the work stations may have been rated adequate only because of small enrollments rather than because of wise planning and support on the part of the administration. There were some instances of overcrowding in business education classrooms, but these were not considered serious enough to lower the overall rating.

Instructional Staff. In the medium-sized communities were found the best, as well as the poorest, prepared teachers from the standpoint of personal qualifications, educational preparation, and practical experience. Although most instructors were highly qualified, and many were extremely dedicated, it was only in the medium-sized communities that teacher frustration and lack of high spirit were observed.

Community attitudes toward vocational education also appeared to be widely divergent in the medium-sized communities. Understanding and appreciation of preparation for employment were observed in one community and the vocational programs were considered a fundamental part of the total educational effort. In another community, the attitude was one of indifference and lack of information as to the purpose of vocational education.

Summary. While it was found that the medium-sized communities in the study presented a picture of contrasts, it should be noted that the best physical facilities were observed in these schools. Apparently communities of this size (100,000 population, but less than 500,000) can better support the somewhat more costly physical plant needed to carry on vocational offerings.

It should be noted that the administrative organization appears to have broken down somewhat (at least within the sample) in the medium-sized communities and the administrative strengths were not so prominent as in the small communities. There was also some indication of a lack of rapport among the staffs and a higher degree of compartmentalization.

The relatively small enrollment and the not overly impressive breadth of the programs indicate a need for further exploration. It would seem the medium-sized communities should ideally be able to encompass all of the strengths (qualities) of the small communities and at the same time avoid all of the weaknesses of the large communities. Unfortunately, this was not the case as the medium-sized communities had fallen short of achieving all that appeared possible.

Large Communities

The three large communities included in the study were attempting to cope with problems which other large metropolitan areas throughout the nation are encountering. Each city was composed of numerous neighborhoods which were undergoing major social and economic changes. Although vocational education in the large cities had long been an integral part of the total educational program, factors such as the growing proportion of nonwhites in the population, the shift from the manufacture of durable to non-durable goods, and the emphasis upon the service occupations, had caused the schools to realize that their total vocational education program would need restructuring in order to meet the needs of youth in the 1960's. Such changes were already under way at the time of the study. In fact, in the early 1960's two of the cities had undertaken extensive city-wide surveys the results of which had been released shortly before the present study was undertaken. Consequently the visiting team found the cities in a state of transition.

Administration. Although the administrative staffs in the large cities were to be commended for the efforts they were making to improve and extend their vocational education programs, there were no items under the heading "Administration" which can be considered strengths typical of large cities. The visiting team did, however, observe several weaknesses which were common to the large cities:

1. The administrative organization was such that the lines of command did not help to promote sound vocational-technical education.
2. The administration was less apt to encourage and promote sound coordination among academic, related, and shop instruction.
3. The administration was less apt to believe in, encourage, and promote sound coordination among all occupational preparatory programs, whether offered during the day or evening.
4. The administration did not have an effective plan for constant evaluation and reorganization of programs.
5. The administration was less apt to carry out an efficient policy of effective maintenance of equipment with a minimum of red tape and delay.

Administrative organization in the large cities appeared to be unwieldy and not conducive to the establishment of effective, city-wide vocational education. Some of the vocational high schools, which offered high quality training in a number of skill areas, operated virtually as independent entities, with little direction or communication from the central office. There was scant evidence that the administrators or the staffs of these schools would play a major role in training the staff for vocational programs in the comprehensive high schools. In general, it could be said, however, that reasonably effective vocational education programs were being conducted in the large cities in spite of the several cited administrative weaknesses.

Aims and Objectives. The breadth and flexibility of the programs were the outstanding strengths found in the large communities. Except for the comparative lack of vocational agriculture and technical education, there were available in each large city vocational programs of such variety as to meet the interests of a substantial diversity of the student populations. Table 4.1 illustrates the scale of the trade and industrial education offering.

Broad offerings were noted in business education and home economics as well. Some of the programs were so flexible that they could be virtually tailor-made to fit the aptitudes and interests of individual students. In addition, the large cities were to be commended for having recognized the existence of students with unmet needs who had previously been ignored.

Instructional Program. To a large extent the commendable aims and objectives of the large cities were realized in the instructional program. Considering the magnitude of the task of providing vocational training to so many secondary school students, it was a significant achievement that only ten per cent of the programs received overall ratings as low as "fair." All of the others were considered "good" or "excellent." Some of the schools had established effective selection criteria, and entry into the programs was on a competitive basis. The visiting team's ratings were invariably higher in schools with effective selection procedures.

However, the number of students involved in vocational education was comparatively small (6.1 per cent of the total enrollment) and it seemed obvious that the impact of the program would do little to alleviate existing or projected shortages in certain occupational categories. The few students receiving skill training in technology, retailing, and the health occupations would, of course, have favored positions in the job market. As could be expected when the demand is great and the supply limited, placement data supplied by the schools indicated that the graduates of vocational programs were quickly absorbed into the labor market.

TABLE 4.1

Number of Different Offerings in Trade and Industrial Education

	Size of Community		
	Small	Medium-sized	Large
Boys	12	17	30
Girls	3	3	9
Total	15	20	39

Physical Facilities. Although some physical plants were new, old structures with non-functional layouts predominated. Many were considered adequate although far from excellent. Overcrowding was observed in many instances and storage space was usually at a premium. In part, these conditions could be attributed to long-standing conservative policies on the part of the school board and the general academic orientation and training of the administration which limited financial support to vocational education.

Much of the equipment used in the vocational shops was not up-to-date. Small tools were in short supply. Some of the office machines, although in working order, were antiquated. Too frequently (although the requirement for better equipment was recognized at the grass roots level) the needs went either unrecognized or ignored by those in positions to alleviate them.

Instructional Staff. The large cities compared very favorably with the medium-sized and small communities in the qualification and preparation of the staffs. Many teachers had extensive practical experience and very close ties with industry. The fact that the physical facilities were far from ideal did not have an adverse effect upon the enthusiasm of the instructors, and one of the most competent and effective instructional staffs observed in the study was located in one of the poorest physical facilities. Of course, the question could be asked as to how much more effective they would have been had the facilities been among the best.

Summary. Although the breadth of the vocational programs found in the large cities was singled out as a major strength, it should not be assumed that this meant that manpower needs were being met. The fact remains that only a small percentage of the students in the large cities were enrolled in these programs.

The large cities are in the process of revitalizing their offerings to provide young people and adults a more adequate preparation for the world of work. What really becomes of this renewed emphasis remains to be seen. Obviously, nothing will be accomplished without their achieving some of the administrative strengths that were identified in the organizational patterns of the schools in the small communities. These strengths include an understanding of the aims and objectives of vocational education, effective public relations, and a sound curriculum organizatio. through the active participation of advisory committees. In many cases, the outmoded physical facilities and the need for updating teachers in technology should be the first order of business.

SECTION II: ADMINISTRATION

One phase of the study called for a careful analysis of the administrative organization of each school system visited by the team in order to determine what effect, if any, the administrative pattern had on the educational program.

One of the nine areas studied encompassed a geographic location which included (1) a self-contained vocational-technical high school under a county board of vocational education serving the entire county's needs; (2) a re-

regional high school system under a regional board of education; and (3) two city school systems each with its own board of education. As a result, the data includes administrative patterns for twelve school systems rather than nine.

At all times the definition of vocational education, as provided by the American Vocational Association, which is based on Public Law 88-210, was used to delineate this phase of education from that which prepares youth specifically to go beyond high school:

> ...vocational or technical training or retraining which is given in schools or classes (including field or laboratory work incidental thereto) under public supervision and control or under contract with a state board or local educational agency, and is conducted as part of a program designed to fit individuals for gainful employment as semi-skilled or skilled workers or technicians in recognized occupations (including any program designed to fit individuals for gainful employment in business and office occupations, and any program designed to fit individuals for gainful employment which may be assisted by federal funds under the Vocational Education Act of 1946 and supplementary vocational education acts, but excluding any program to fit individuals for employment in occupations which the Commissioner determines, and specified in regulations, to be generally considered professional or as requiring a baccalaureate or higher degree)....[1]

This study, based on the above definition, gathered the following information relative to administration and its concern for vocational education.

Aims and Objectives

With few exceptions, top administrative officials had only a fair to good understanding of the aims, objectives, and philosophy of vocational and technical education. It was not surprising, therefore, to find these individuals only moderately enthusiastic in their belief in, and support of, a sound program. The lack of effective use of advisory committees for each of the fields serves as an example of top school administrators' conscious or unconscious separation of the vocational and technical programs from the realities of occupational trends and employment opportunities. In this respect it appears that little was being considered at the top levels of school administration to insure a plan of constant evaluation and reorganization of curricula in light of data supplied through research, surveys, and studies.

Vocational Personnel

In their dealings with those personnel specifically prepared to exercise their role of leadership in vocational and technical education, the top school administrators appeared to fare better. On the whole they had selected (at least in the communities studied) qualified people and had taken the recommendations of these individuals for subordinate appointments.

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[1] American Vocational Association, Definitions of Terms in Vocational, Technical, and Practical Arts Education. Washington, D.C., undated, p. 22.

After completing the surveys of the administrative and supervisory organization in the large, medium, and small communities, it becomes obvious that while the organization chart and the location of the position of responsibility on it are important, they are not nearly so important as the education, training, and experience of the individuals responsible for the administration and supervision of a school system.

A major weakness in the school systems studied lies in the preparation of the administrative and supervisory staff. Administrators and supervisors of education are trained academically, on the whole, by academically prepared people. As a result, their education and training equips them to see, understand, develop, and institute educational programs in the academic areas. Rarely does their preparation include anything that would make them professionally knowledgeable in the area of occupational training. Often, if administrators had had a course which touched upon the vocational area, it was meager and provided insufficient knowledge to equip them to function in the area. This is unfortunate in light of the fact that the majority of students do not go on to college; they go to work, either upon graduating from high school, or by dropping out of school.

In the large and medium-sized communities, the administrative organization and the position of the person responsible for vocational education becomes more important than in the small communities because there was a greater delegation of responsibility and a greater reliance on the special abilities, education, and training of a number of professionals. Invariably, the professional in charge of occupational training was placed in a "chart position," which compelled him to go through one or more academically trained individuals before he could reach the superintendent. In addition, his position often made it impossible for him to have any real authority over the occupational training program in terms of curricula, schedule, facilities, equipment, supplies, or personnel.

Since the majority of secondary students, especially in the large cities, go to work rather than college and since the out-of-school youth and adult needs are primarily centered around occupational training, the professional in charge of such work should not only be a highly qualified vocational specialist, but he should also be placed on the administrative chart in the position of assistant superintendent where he can participate in developing the overall philosophy of the school system and influence the growth and development of the total occupational training program.

Another major weakness observed was in the apparent compartmentalization of the staff. Invariably, there was no evidence to show a planned program for the education and training of the instructional staff. This type of program should explain the overall responsibility of the educational program for educating all of the children of all of the people. This needs to be done if the entire staff is to function as a coordinated whole for the good of the entire community.

The best programs of occupational training and education were in those school systems where the administrative staffs were rated highest in their education, training, and experience in sound principles of vocational education. However, a definite lack of recognition and encouragement of in-service professional improvement, both formal and informal, appeared to be lacking. This is essential in developing an outstanding vocational staff. More so here than in any other area of education, those responsible for updating the program and keeping pace with technological change must be constantly providing continuing education. Technological changes in current society occur so frequently that the vocational educator can afford obsolescence perhaps even less than his academic contemporary.

Financial Support

Although it proved impossible to arrive at an accurate measure of the financial support of the programs themselves, it was fairly obvious that funds were not adequate. Budgets appeared to lack sound reasoning for annual depreciation of costly equipment and its eventual replacement. Moreover, inadequate provision was made in yearly budget allocations for the repair and servicing of equipment.

Budgeting for salaries was found commensurate with other salary allocations, but at the same time it was recognized that, especially in the areas of trade and industrial and technical education, schools had to compete for competent staff with industry. The salaries of the teachers did not meet this competition realistically and hence could attract only those for whom teaching had a special appeal or those who lacked certain competencies.

The budgets for expendable supplies were, unfortunately, often inadequate. For teaching to provide repetitive experience there must be sufficient materials. To equip an expensive facility only to have it sit idle for lack of the raw material to enable its use is foolish.

Coordination

One of the prime concerns of top school administrators should be the coordination of the entire educational offering. Duplication of effort and haphazard development must be avoided. In this respect, much could be said about the necessity for the leadership to coordinate academic, related, and shop instruction. Coordination among all occupational preparatory programs, whether day or evening, provides a substantial challenge. Moreover, coordination should include meetings of the entire staff, vocational and non-vocational, to promote mutual understanding of each other's problems and foster professional cooperation.

Coordination, in general, was found to be lacking, especially where it involved the entire faculty in the understanding of the vocational-technical program. As could be expected, the larger the school system the more serious the problem. But there were expections which showed that this problem could be solved.

Support by the Board of Education

Probably one of the weakest areas sensed by the visiting team was the failure on the part of the boards of education to guarantee the continuity of a sound vocational education program to meet the needs of students and the community, regardless of changes in administrative personnel. Here it appeared, or at least was inferred, that there was a lack of understanding of vocational education on the part of school board members. There is no excuse for lay leaders of the educational system not to take the time to understand all facets of the school program, including the vocational offerings. Although most members of school boards represent professional levels of employment, they should still strive to acquire a genuine understanding of the needs of the school population which will enter blue collar occupations.

The weakness most often observed with respect to administration was a lack of assurance of the continuance of a sound vocational program. The constant effort to cut educational expenses is undoubtedly behind this lack of continuity. Admirable as this objective might be, it should not be used as an excuse for failing to provide adequate educational opportunities.

Summary

It was noted that one of the major reasons for the critical situations in the large cities was the general educator's inability to provide a realistic educational program with honest educational hurdles for those students who go to work, rather than go on to college or some form of post-high school education. This resulted in all types of community pressures and dissatisfactions. The few programs oriented toward the world of work and their low enrollment clearly emphasized this weakness.

The unique importance of the administration of a school system is in its development of a climate which motivates and inspires the educational staff to exert its best efforts toward developing and providing programs which meet the needs of all of the children. Concomitant with such an educational climate, there must be a willingness on the part of the superintendent to recognize his own strengths and weaknesses in the various areas of education and to select assistants with abilities and specialized training in the areas for which they are responsible. These assistants must then be placed in the organization at levels from which they can influence the policies of the boards of education. Under these conditions sound programs will be instituted in the area of vocational education.

At the administrative level, in a number of cases, there were plans to incorporate some type of occupational training in every high school, but no administrative plan was being considered for preparing staff for this development. Neither were there plans for the utilization of representative and active advisory committees from the industrial and business community to assist in developing sound programs from the standpoint of student selection, educational curriculum, and eventual job placement. The entire idea of expansion too often appeared to be predicated on the fact there was money available as a result of the Vocational Education Act of 1963 and the school system ought to take advantage of it. Many generally accepted principles of vocational-technical education, agreed upon by outstanding leaders in the field, were observed to be either ignored or unknown to those at the top administrative levels.

SECTION III: VOCATIONAL GUIDANCE

In assessing the important function of vocational guidance, 17 of the 25 schools in the study were visited. Of this number, two were in the small communities, seven in the medium-sized communities and eight in the large cities. The comments contained in this section are, therefore, based on a sample of schools and communities participating in the study.

Vocational guidance as defined by the Committee on Publications of the American Vocational Association is:

> The process of assisting individuals to understand their capabilities and interests, to choose a suitable vocation, and to prepare for, enter, and make successful progress in it.

Therefore, vocational guidance was looked upon as playing a major role in the vocational and technical curriculum in each school in the study.

The typical counselor observed in this study was involved 10 per cent of the time in keeping records, 50 per cent in conducting interviews, 8 per cent in administering tests, 2 per cent in handling disciplinary problems, 19 per cent in consulting with teachers, and 11 per cent in other general activities. The average ratio was 441 students to one counselor in the senior high school and 497 to one in the junior high school.

Each school was asked about the testing program in both the junior high school and the senior high school. Most schools administer an IQ test in grades 7 or 8. The Otis Beta Test and the California Test of Mental Maturity were the most commonly used. The Iowa Test of Basic Skills was the achievement test most often used at the junior high school level. There was little evidence that achievement tests (other than college entrance) were given at the senior high school level and few schools reported a program of group testing as part of the senior high school guidance program.

Few schools administered special ability tests at either the junior or senior high school levels. In three systems the schools used the Differential Aptitude Tests in grade 8 and some type of mathematics tests. In two instances the business education departments used a stenography ability instrument. One senior high school reported the General Aptitude Test Battery was used in grade 12 and another administered the State Civil Service Examination for interested seniors.

Interest inventories were part of the testing program in only half of the junior high schools and in few of the senior high schools. Personality inventories were not administered except on an individual basis and then rarely.

Only certain vocational high schools used tests as part of their selection procedure and had minimum scores for entrance to various programs. One might ask the question: "How do the schools know what the varying abilities of their students are?"

In general, it can be stated that aptitude and achievement testing was done on a mass basis in the junior high schools, but very little testing went on in senior high schools except for the nationwide college entrance tests such as the School Ability Test, the American College Test, and the National Merit Scholarship Qualifying Test.

If selection standards had been established, they were apparently based on IQ and achievement tests alone, if based on tests at all. Interest and aptitude inventory results were not reported as significant factors in program selection. The counselors had to rely upon expressed or manifest interest, which could have proved difficult with so large a counseling load. Whatever special abilities students possessed were not generally identified or discovered through the guidance testing program.

In general, the vocational side of the guidance programs was judged to be weak.

Aims and Objectives

Much that will be said later concerning vocational guidance in connection with each of the programs relates to aims and objectives. However, it should be noted at this point that there was no attempt on the part of this study to break guidance down into those aspects dealing with the academically and the vocationally oriented youth. The data gathered are concerned only with guidance directed at the students enrolled in one vocational education curriculum.

It was the observation of the visiting team that the overall guidance effort as it pertained to the vocational education aspects of the school programs could be rated only "fair" to "good" in the communities studied. The vocational student did not receive the emphasis required in the statement of the aims and objectives.

While none of the groups of communities studied (small, medium-sized and large) received an excellent rating on aims and objectives some did accumulate an average of "good" on certain items. It was observed that the aims of guidance programs generally included a distinction among occupational levels, especially in skill classifications such as unskilled, semi-skilled, skilled, and technical.

Apparent weaknesses in the aims and objectives of guidance programs were:

1. Lack of provision for disseminating labor market information.

2. Lack of provision for concerted effort to assist youth to achieve desirable (and realistic) goals.

3. Failure to provide for adequate dissemination of occupational information.

Physical Facilities

One would expect to find the physical setting for the delicate handling of personal matters of guidance to provide a high degree of privacy and a relaxing atmosphere. The ingredients for such an atmosphere were rarely found in the physical settings of the schools visited. Except in a few instances, the physical facilities were found lacking in ease of accessibility and adequate floor space, individual counseling areas, accommodations for waiting students, places to display resource materials for easy use, and facilities for record keeping and easy retrieval of records. There was also a definite lack of clerical assistance to do the many nonprofessional tasks which accompany the guidance function.

Staff

In the typical work load of guidance counselors,the duties were fragmented to a point which must have caused a great deal of frustration. Nevertheless, the staffs observed were, on the most part, rated "fair" to "good" in their educational preparation, and "good" to "excellent" in their practical experience as counselors.

The major weakness noted was the general lack of occupational experience of a wage-earning type. Their major strength, on the other hand, was on the item, "Personalities conducive to attracting students." It also should be noted that guidance counselors were not very active in community and civic organizations and lacked an adequate preparation in the interpretation and use of occupational data. Most, however, met certification requirements admirably.

The Guidance Process

In the small communities, vocational guidance was judged to be mainly college-oriented and suffered from having too many students per counselor. In general, the counselor was poorly prepared to disseminate occupational information on a general basis and was doing an ineffective job of vocational counseling. On the other hand, many of the shortcomings could not be blamed on the staffs involved as they were fully certified, recognized their problems, labored under poor facilities, sometimes had to play the role of disciplinarian and lacked assistance with routine clerical work. All in all, vocational guidance in the small communities needed improvement which would result only from sustained leadership.

As a member of the visiting team stated:

> There seems to be very little effort made by the guidance personnel to expose youth to the vocations before they enter high school and there is little liaison between the guidance personnel of the junior high school and the trade and industrial division of the senior high school, except at the usual scheduled meetings....There is little consideration given to guidance in the vocational-technical area and it is done on a hit-or-miss basis....The guidance program seems to be too closely oriented toward what the community wants and too little toward what can best benefit the students.

In another instance, the ratio of pupils to counselors in both junior and senior high school was about 900 to one. In this senior high school, guidance assistance for boys consisted of two full-time and two part-time people. Of those exercising counseling functions in the senior high school, only two were fully certified. Both the superintendent of schools and the acting director of guidance readily admitted that even though they were making an effort to strengthen the guidance services in the schools, generally little had been done to emphasize the area of vocational guidance.

In the medium-sized communities of Kimball, Lewis, and Miller similar conditions were found. In at least one community it was observed that the junior high school counselors recognized the fact that all students were not college preparatory material and they were making a strong effort to expose non-college-bound youth, who showed promise, to the values inherent in a vocational-technical education. Moreover, while it might have been only an isolated instance of empathy for the children at the lower socio-economic levels, one counselor was expanding his guidance outreach to include potential dropouts in his junior high school. In this case the counselor was seeking out children and was modifying his guidance techniques to meet the needs of such youth. It was noted with some interest that, in one particular case, a guidance staff at the junior high school level was exemplary in achieving nearly the ultimate in guiding all children to the programs for which they were best suited while at the same time this staff was located in one of the poorest facilities. This facility was one large crowded room in which three counselors were located. The files and guidance materials were placed about in an orderly manner but display facilities were poor. No provision was made for individual counseling and the facility was located in the end of the building on the basement floor near the cafeteria, one of the least likely places for guidance facilities. Yet the devotion, ability to innovate, and continuing eagerness of the staff to do a good job transcended these inadequate facilities to the extent that they produced a guidance program which in content and orientation was the best observed.

In another medium-sized community, which used an area vocational school to provide specialized offerings, it was found that the feeder comprehensive high schools and their guidance staffs did not accept any responsibility to acquaint their students with these offerings. Obviously, where this was the case, the vocational school people needed to communicate more effectively so that more students would benefit from their offerings. However, even in feeder schools, where the area vocational school's offerings were well known, the guidance people were quick to point out that the area school could not possibly accommodate all of the applicants from the county's feeder schools. Therefore, the problem existed as to what to do with those students who needed occupationally oriented instruction, but who could not be admitted. As an example, in one school, about one-third of the high school's graduates went on to college; the remainder pursued a general course or one of a few vocationally oriented courses. Yet, by their own admission, the guidance personnel were frustrated both by their lack of orientation to the problem of guidance for a vocation and by the lack of facilities to provide vocational opportunities for their students.

In a single, large, comprehensive high school in a medium-sized community, testing was done on a group basis mostly in the junior high schools, while at the senior high school level it was carried on individually. Although most of the counselors seemed to have a good knowledge of the diverse test instruments available, there appeared to be little emphasis on the special ability testing area and as a group most of the counselors seemed to be academically oriented. Except for those youth who showed no motivation for the academic program, these counselors did little to encourage those who could benefit from a vocational program. In fact, most of the counselors confessed that they were unacquainted with the excellent vocational offerings of the school system except for the information disseminated to them through regular communication channels.

In this same community, vocational guidance was considered by the administration to be a planned function of the school program. When the nature of the vocational guidance program was examined, however, a question arose as to the extent of its integration into the overall guidance picture. The individual in charge of all vocational guidance activities at the senior high school level was apparently isolated from the remainder of the counselors because of the nature and diversity of his activity. He was assigned all students taking the vocational-technical curriculum yet had little control over who elected a vocational curriculum. There was only a superficial relationship between the vocational counselor and the counselors at the junior high school and tenth grade levels. Obviously, in this situation questions could be raised as to the understanding of the role of the vocational guidance services and to their support, to any great degree, by the administrative staff.

Minority Groups and Guidance

The large communities also mirrored some of the shortcomings of the vocational aspect of guidance found in the programs of the small and medium-sized communities. The programs found in the high schools in the large communities indicated some liaison between the feeder junior high schools and the senior high school programs, but here the concern for minority youth became a critical aspect. It was observed that there was a tendency on the part of students and parents to reject the recommendations of the counselors. It seems that many, by tradition, preferred to follow the same educational pattern as their parents. Junior high school graduates were inclined to attend their neighborhood high school. Even more so, those students whose parents had attended a certain school tended to return to that school.

These provincial patterns of school attendance tended to perpetuate a pattern of segregation of minorities in certain schools in the large community which made guidance practices ineffectual. Guidance programs should be designed to make both students and parents aware of the advantages of their accepting and following the programs which can develop the students to their maximum potential. So long as tradition continues to dictate where a child attends high school, guidance will remain an ineffective tool within the school system. Most large cities have felt a strong impact from minority populations and, in most instances, educators, especially at guidance levels, have reacted to this experience in a traditionally conservative manner. Apparently, instead of making sweeping changes to combat the situation effectively, they have tried to adjust their programs along known concepts -- concepts which do not generally apply to minority youth. Application of traditional principles of guidance to situations which demand a new mode of thinking have only complicated the racial situation.

To be more specific, because of the residential patterns of minorities, most minority youth were guided toward academic schools with a continuing high percentage of minority population, or to the lower level trade or occupational schools. In fact, when the small percentage of minority youth directed to a top level vocational-technical school is considered, a question arises if guidance personnel in the junior high schools are aware that minority youth can be successful in such a school. There were many indications that Negro youth, as well as many of their elders, thought that they were being excluded from vocational-technical schools or at least discouraged from attending them. If this is the case, and evidence presented in Chapter 9 suggests that it is, then certainly the vocational guidance program requires adjustment. Many guidance counselors expressed awareness of this problem, but they were quick to make allusions to the difficulty of minority youth in getting into trades and occupations where they must serve apprenticeships.

Summary

It was consistently found (except in the separate vocational-technical schools) that most of the guidance people were college-oriented and that they depended on the student to take the initiative in seeking information in order to make a vocational choice. In fact, very few counselors interviewed had any education or experience in vocational counseling techniques. Obviously, part of this fault lies in the continuing need for more courses in the preparation of counselors related to vocational guidance. The guidance segment of our educational system should give adequate consideration to the vocational, as well as the academic, aspects in the placement of qualified youth. It is apparent that there has to be developed a program of training for counselors, especially at the junior high school level, which will expose them to vocational offerings within the school system in a way that will give them a full understanding of the role of vocational education. This would make their guidance procedure more effective in selecting and exposing the youth to the vocational-technical education program which will best serve their needs.

Still another factor impeding the progress of good vocational guidance was the small number of students that could actually be accommodated by the well-equipped and outstanding offerings found in the large communities. In the eyes of some guidance counselors it appeared that vocational schools were being set up more or less as the elite offerings for only the most qualified students and the remainder, who might be able to benefit from such a program, were given little or no consideration. The vocational teachers, however, did not believe that vocational education was an elite offering.

SECTION IV: ADVISORY COMMITTEES

The use of lay persons on advisory committees has long been claimed as a strength of vocational education. Defined by the American Vocational Association publication, an advisory committee is:

> ...a group of persons, usually outside the educational profession, selected for the purpose of offering advice and counsel to the school regarding the vocational program. Members are representatives of the people who are interested in the activities with which the vocational program is concerned.

From this definition, it is evident that the purpose of the advisory committee is to serve an important role in the guidance and fullest development of vocational offerings. Indeed, the value of advisory committees in general education is only now being fully realized and more and more school administrators and other curriculum areas are making use of such community resources.

Aims and Objectives

The aims and objectives in the use of advisory committees are obviously to strengthen programs. More specifically, the use of such committees serves to involve community resources (management and labor) actively in these educational programs.

The advice and wisdom of persons closely allied to the curriculum should serve as a guide to the production of a high quality end-product -- a graduate who can be assessed by business and industry as an advanced learner. To turn out graduates who are not so recognized is the equivalent of turning out college preparatory graduates who are not admissible to colleges.

Advisory committees are normally confronted with problems of curriculum content, teacher qualifications, adequacy of physical facilities and hardware, availability of supplies and materials, assessment of the quality of the offering, student placement and follow-up, and other pertinent matters.

Committees may be formed into general, overall advisory committees or those that are specifically related to particular programs in vocational education. Those related to particular programs (especially in trade and industrial education) are frequently called craft committees.

The Use of Advisory Committees

In the communities studied the advisory committees and their lack of active participation constituted a weakness. Except in rare instances, the use of advisory committees cannot be cited as exemplary.

In general, it was noted that they did not exist. Where they were established it was found that few meetings were held, that they lacked representation from large employers, and from local labor organizations, and that there was a substantial decline in the use of craft (specific) type committees. Even more alarming was the tendency to start new programs with utter disregard for the organization of advisory committees.

Table 4.2 emphasizes what was considered a weakness in the use of advisory committees -- the "spottiness" of their functioning.

It should be noted that most programs appeared to be operating without much assistance from advisory committees. Chapter 7 offers some clues as to the probable reasons for this neglect. In general most of the employers and union officials interviewed did not appear to have done any serious thinking about the training of young people. Their answers to questions about qualities lacking in current graduates, skill areas where more effort was needed, and suggestions for improving vocational programs reflected conventional stereotypes rather than any real analysis of the problems. Those employers,

TABLE 4.2

The Utilization of Advisory Committees[a]

Communities, by size	Status of advisory committees
Small	
Adams	Functioning for distributive education and office occupations. None for trade and industrial education.
Baker	Only for dental technicians and post-high school practical nurses.
Clark	Functioning for trade and industrial.
Medium-sized	
Kimball	Once a year formal meetings. Participation very good, especially management.
Lewis	
School District #1	None in office occupations
Vocational School	Not extensive, spasmodic, not well organized
School District #2	Used in distributive education
School District #3	None in distributive education
Miller	None in distributive education and office occupations, spasmodic and not well organized in trade and industrial.
Large	
Pierce	One city-wide. None for craft areas.
Quinn	At one high school: T & I boys. Not contemplated for comprehensive high school programs.
Randall	Strong in separate vocational high schools. Non-existent in comprehensive high schools.

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[a] Data provided by schools or by observation

however, who had experienced the most active contacts with vocational education had the most positive attitudes towards it. On this basis, advisory committees would seem to be useful if only to improve the image of vocational education. The benefits that could flow from an increase in the involvement of employers and union officials would probably be more than just improved community relations. Once these people could be brought to apply actively their experience and expertise to the problems of vocational education, they undoubtedly could provide valuable guidance. The key words, however, are "apply actively." It is the responsibility of the school officials to stimulate this degree of involvement.

SECTION V: REACTIONS OF THE LABOR AND MANAGEMENT TEAM

The visiting team included representatives from labor and management who were given the task of interpreting the overall program of vocational education from their points of view and in terms of current manpower needs. They observed the total vocational curriculum in the schools and met with union, management, employment service, and personnel representatives in an effort to assess the total offering and its impact on community needs.

The primary emphasis of the labor and management team members was upon the schools' awareness of social and economic changes taking place in their communities and the ability of the schools to keep pace with these changes. It was from this point of view that the physical facilities, the breadth and scope of the programs, and the leadership in evidence (or its lack) were rated and analyzed.

Physical Plant and Hardware

The labor and management team members found that the physical plants spanned the range from very old to new. Even in the very old facilities they noted that the housekeeping was good and maintenance had been consistently provided over the years. Many of the shop layouts did not appear to them to be functional and were judged very poor. They found no evidence, however, that the poor layouts interfered with the instructional process itself. They thought that the medium-sized communities provided the best physical plants. The few newer schools in the large cities had excellent functional layouts but, generally speaking, they found that old, but adequate, physical facilities predominated in the schools under study.

The variations that the labor and management team members found in the physical plants were even greater in relation to the hardware being used. Even in some of the newer facilities they found the hardware, although excellent, in short supply. Much of the equipment they judged adequate, although not up-to-date. In some schools, regardless of community size, the quantity and quality of equipment varied from program to program. It was notably good in the favorite courses and run-down and old in the less glamorous ones. They observed that because of the efforts that the large communities were making to provide vocational education to students on an increasingly broader scope, the schools found it difficult to keep all of their equipment modern and up-to-date.

Nature of the Offering (Breadth and Scope)

In the small communities the labor and management team members found that the choice of programs offering pre-employment training was narrow. Management in the small communities, in their opinions, accepted the vocational education programs, although in Clark the exposure of management to the programs had been quite limited. Generally, they thought that the attitude of management was simply one of blind acceptance of the offerings as they were. Industry appeared unaware of its potential role in vocational education and was not pushing for increased breadth or depth of the vocational offerings. These team members found little activity on the part of organized labor in the small communities they visited.. Labor, as such, did nothing to add to either the breadth or the scope of the offerings. One small employer expressed the wish that the school could be training draftsmen in some of the newer skills of the craft. This employer, however, had never considered the possibility of making a request of the schools that training include the newer methods.

Vocational offerings in the medium-sized communities varied considerably in breadth and scope according to the findings of the labor and management team members. They found that the vocational program in Kimball had the support of the Chamber of Commerce and that management was participating at all levels. Advisory committees had been formed and were active. Small firms provided further on-the-job or advanced training where the need was indicated. This was especially true for the trade and industrial and technical offerings. Although distributive education was offered in Kimball, several small companies and the Chamber of Commerce told the labor and management team members that they would like to see more emphasis on training for sales jobs, where the employment opportunities existed. In fact, the team members found that women's occupations on the whole were given very little attention in the communities.

To cite another example, in Lewis the physical facility itself had been limited for such a long period of time that local labor, management, and the employment service had concluded that what was being done was what the school administration wanted. Although they recognized the need for broader offerings and an increase in the enrollment of students, they had not looked to the school as a source of trained employees. Again, the labor and management team members observed that vocational training opportunities for girls were extremely limited and such programs as did exist attracted few students.

In the large cities the vocational offerings covered a wide scope and were compatible with the large and varied industrial and occupational markets, in the opinion of the labor and management team members. They found the multi-faceted school system which existed in the large cities usually had some good vocational offerings for students of all abilities. This was particularly true of trade and industrial as well as business education. Good cooperation and support had been secured from both management and labor and had served to strengthen the offerings in the vocational high schools. In Pierce, the cooperative attitude of labor was particularly noted. Active participation in the educational effort had actually been initiated by labor.

Although there was no doubt in the minds of the labor and management team members that the large cities had just about every combination of offerings to meet the needs of every student, they found an extreme lack of uniformity from school to school in each of these cities, a condition which tended to weaken the effectiveness of the total effort.

General Atmosphere - "Esprit de Corps"

In all communities the labor-management team members found the morale of vocational students to be very high. This was true in both comprehensive and vocational high schools. The students appeared to these team members to have a strong loyalty to their schools and to rise to the challenge required of them by the skill training requirements of the programs. (The follow-up interviews of vocational graduates of comprehensive schools, however, revealed a somewhat different conclusion. These results are discussed in Chapter 8.)

The staffs appeared to be dedicated to their students and to their schools. In the community of Baker the practice of having the academic teachers, instead of the students, travel from the main high school to the technical center for classes had been initiated. This resulted in higher morale for both students and staff.

The labor and management team members observed that the high morale of staff and students was not necessarily reflected in the attitudes of local management and labor. This was particularly true in the small communities. In Baker they found a poor image of vocational-technical programs in all segments of the community and in Adams and Clark there seemed to be a definite lack of understanding by management and labor as to the true goals of vocational-technical programs.

Exactly the reverse situation was found in Kimball. Here close community-school relationships, in conjunction with good press coverage, produced a positive image for the academic and technical aspects of the school, according to the labor and management team members. Employers, they found, were eager to employ graduates of the vocational programs, and the community appeared genuinely interested in meeting the needs of all the students and motivating each one to realize his maximum potential.

However, these team members did not find this almost "ideal situation" in all medium-sized communities. In Lewis one large employer did not recognize any functional relationship with the vocational school. He stated very plainly that vocational education should not expect automatic support from his company. Neither did the small employers in this community see the vocational school as a steady source of workers. One small employer told the team members that when hiring he looked for motivation and interest rather than vocational training. He claimed that he was perfectly capable of providing the necessary training.

The labor and management team members found excellent support given by organized labor in the large city vocational schools. The good relationships which had been established were very marked. In Randall, these relationships were city-wide, but they were very good within the local neighborhoods. In Pierce, labor wanted to become more involved in the vocational program and was willing to provide aggressive support to education. Support was also received from management in these three large cities and its attitude toward the vocational education offerings appeared satisfactory, in the opinion of the labor and management team members.

Keeping Up with Changing Technology and Manpower Needs

In most of the communities, the labor and management team members found that educators, industry, labor, and the employment service were all aware of technological changes which had taken place and the resulting manpower needs at that time. The extent to which this awareness led to action toward updating programs and attracting students to them varied considerably. As might be expected, in those communities where there were close working relationships with labor and industry, the problem of keeping abreast of change was greatly simplified. This was particularly evident in Kimball. Here the team members found that employer participation on advisory committees provided feedback about technological change so that programs could be revised and kept up-to-date. For example, in one case, a masonry contractor sent new materials for the schools to use in the curriculum. In other instances, employers made the latest techniques known to the schools and the staffs were encouraged to visit the various industries to gain first-hand knowledge of changes in particular processes or techniques. As admirable as these examples are, these team members found that they were not extensive and appeared to depend largely on the leadership found in the local school as well as the initiative of individual teachers.

In the large cities the labor and management team members found that there was a trend to develop specialized programs to meet local manpower needs in neighborhoods adjacent to the schools. Moreover, there appeared to be an effort to keep programs as flexible as possible to meet individual needs. They observed that the establishment of local "skill centers" to serve Quinn was a step forward in expanding the vocational offerings.

Health programs initiated in Baker appeared to them to be well received and were helping to change the poor external image of vocational education in the community. The emphasis in Adams was on training for "out-migration" skills because many youth would leave the community for employment.

In Lewis and Miller the labor and management team members observed that the failure of the schools to keep attuned to changing technology was most marked. In Miller, the emphasis was on the mechanical trades in spite of the fact that all comments and statistics indicated a surplus in these occupations. On the other hand, the team members felt that it should have been obvious to the local leadership that a need existed for programs for occupations in the non-manufacturing sector. They found that one major firm in Lewis, knowing the need for upgrading and retraining, had created its own courses in fundamental skills, thereby duplicating the school's efforts. Its management did not realize, and readily admitted their ignorance, that public education could assist with these basic educational needs for adults.

In the final analysis, the labor and management team members observed that, despite relatively high placement percentages, the absolute number of students graduated from vocational-technical education programs was few. Graduates of on-going programs had no difficulty finding employment. But the schools trained only a small proportion of the students and produced a small supply of the workers required. In their opinion, the output of vocational-technical graduates was insignificant in terms of local needs -- needs which could not possibly be met without a total effort from all parts of the community. The schools, these team members found, were far more successful in keeping individual programs current than they were in making sound provisions to fulfill local or even regional manpower needs.

Instructional Process

In the category of instructional process, the labor and management members of the visiting team were looking at the contribution which the community as a whole had made to the instructional process as well as the programs which had been developed within the school. Almost without exception, they found that good teaching was being done by dedicated instructors. Although they could class some of the individual programs as only adequate, many, they thought, were truly outstanding. Many of the courses appeared to be well received by the students. In Adams they observed that little attention was given to the slow learner or the student without a definite goal,throughout the school system. He was left to survive in any manner he could. In Randall, on the other hand, the trade and industrial programs were conducted on three different tracks, resulting in single, multi-skill, and other skill programs to meet varying student needs.

In the schools where advisory committees had been formed and were working effectively, these team members found the programs had been greatly strengthened. Unfortunately, advisory committees, they felt, were all too frequently either non-existent or virtually functionless.

They observed that some quality programs were not operating to capacity. This was true both in Kimball and in Pierce. One shop was actually inoperative because of a shortage of students and, in other cases, several shops were observed vacant for long periods of time. As a result, expensive technical equipment remained idle. On the whole, the labor-management team members found community resources were virtually untapped for the contributions which they could make to the total instructional process. Labor and management had been most cooperative, especially in the large cities, when the schools looked to them for help but unfortunately the schools did not often request aid.

Impact of the Vocational Program upon the Community

In Kimball the labor and management members of the visiting team found conditions extremely favorable to the development of vocational education. In their judgement local management, community leaders, and the citizens were all conscious of the world of work and its relationship to education. Consequently, the school was motivated to make available as many educational opportunities as were practical and possible. As a result, these team members felt the programs had prospered and the level of local labor skill had undoubtedly been responsible for the decisions of various industries to locate in the area. It was in Kimball that the most satisfactory interrelationship was found between the educational system and student and community needs, but even under these really ideal circumstances, not all manpower needs were being met, particularly in the vocational preparation of girls.

In all of the other communities, the labor and management team members reported that the impact of the vocational program was slight. In some cases, they suggested that this could be due to the relative apathy or inactivity on the part of labor and management. However, they found that the most significant factor was that manpower needs overshadowed the output of vocational programs.

In the county vocational school in Lewis, in spite of the effort made by the guidance staff to inform prospective students concerning the program, the labor and management team members found many families who did not know about the vocational school and some of those who did know fought against the enrollment of their children. Families who had allowed their children to attend, however, and had measured their occupational "success" against neighbors' children, subsequently encouraged younger brothers to enroll. The school had not been successful in promoting its program for girls, except for the ever-popular beauty culture offering. One large employer considered basic literacy as his main problem and not operational skills. In fact, a literacy education program was undertaken in one large company without utilizing the public school system. This may be partially attributed to the fact that, in the past, the school administration had not secured the active involvement of labor, management, and the employment service. On the whole, the labor and management team members found that the total vocational program as it existed in Lewis at the time of the study was making very little impact upon the total manpower needs of the community.

Vocational Leadership

Considerable local leadership ability in the schools was observed by the labor and management members of the visiting team. In the case of the small communities, it was much easier for a dynamic individual, armed with good ideas about vocational education, to translate them into action. In part, these team members thought this was due to the vocational leaders' comparatively easy access to the school administration and school boards. In the large cities, although the leadership was observed to be excellent in individual schools, they were hampered by a lack of city-wide leadership. There were indications that even in the large cities those in top administrative positions were beginning to become aware of vocational education and to recognize the need for increasing support for this aspect of their total program. In most cases, this was given considerable impetus by the favorable attitude of both labor and management. Unfortunately, it was observed that little leadership was being exerted on the part of the employment service.

Summary

In summary, the labor and management members of the visiting team concluded that the major deficiency of the vocational curriculum lay in the fact that the energizing forces of the economy which promote and stimulate education (i.e., labor, management, and government) were not operating at full power with respect to the curriculum. All too frequently it was found that a good vocational school with limited programs was turning out a few students who were quickly employed. Under these circumstances one could well question the repeated emphasis on "percentage employed" in the occupations, or a similar related statistic, when the total number of students served was so small.

Kimball was held up by the labor and management team members as an example of what can be accomplished under the continuous guidance of competent administrators and good image-building for the vocational program. In some of the other communities, the choice of programs or offerings seemed to them to be very limited. The students appeared to be pressured into taking ongoing programs or dropping out of school. Little attention was given to the slow learner or the uncommitted student, but the large cities were taking steps to enlarge their programs to include greater numbers of these students.

In many of the communities the labor and management team members found that although the skilled trades utilized the facilities for their apprentice programs, the union officials were reluctant to admit that a vocationally trained graduate possessed greater skill than a student graduating from the general curriculum. In some communities the labor movement, or more specifically the skilled trades, took the attitude that the vocational program might jeopardize their control of the labor supply. Therefore, while they did not actually take any steps to weaken the program, they gave it only minimum support.

Some of the communities were fortunate, the labor and management team members reported, because dynamic individuals were placed in administrative positions where they could exercise their leadership qualities. Good leadership on the part of school administrators was particularly important when the school, as an institution, was subjected to forces outside of its control, such as discriminatory hiring practices. In some communities, it was observed, employer policies tended to determine the work opportunities for youth and thereby almost dictated the extent of their formal training.

SECTION VI: GENERAL SUMMARY[2]

In this chapter, some aspects of the "input" side of vocational education were analyzed and discussed. The assessment of vocational education was based on an evaluative criteria-type instrument administered by a visiting team. The same team visited each of the nine communities (including 25 different schools) in order to evaluate the quality of the non-curriculum and curriculum aspects of vocational education. In this chapter the quality of administration, the instructional program, physical facilities, and the instructional staff were assessed. In addition, the vocational guidance program, the use of advisory committees, and the reactions of the labor and management team were discussed. The assessment of the curriculum and the individual programs is presented in Chapter 5.

In reviewing the vocational programs of the small, medium-sized, and large communities, certain general strengths and weaknesses were found regardless of the size of the community.

The primary administrative strength found in all communities was the leadership of a small number of individuals who were overcoming substantial odds to provide good programs. There were no general strengths found for vocational guidance or in the use of advisory committees. The representatives of labor and management noted the following five strengths in all communities:

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[2] Conclusions with respect to the subjects discussed in this chapter are presented at the end of Chapter 5.

1. In the main, capable and dedicated staffs.
2. Generally good equipment -- but limited in some areas.
3. Physical structures good in most cases.
4. General acceptance of graduates by small job shops.
5. Implementation of some new programs, especially in health occupations, but not nearly enough.

The weaknesses that were common to all communities outnumbered the strengths.

The administrative weaknesses arose because the person in charge of vocational education did not have adequate status on the top staff. Because of this lack of status, the vocational director did not have easy access to the superintendent to assure that adequate attention was given to vocational offerings.

The guidance program for students enrolled in the vocational curriculum was found to be inadequate from many points of view. The physical facilities in many situations were such as to prevent any satisfactory personal communication between the student and the counselor. Testing procedures to determine aptitudes, abilities, and interests were poor. There was a lack of adequate labor market information, and inadequate provisions for disseminating occupational information. To a large extent the inadequacies in guidance could be attributed to poor relationships and communication between the administration and the guidance counselors.

These specific weaknesses of guidance were cited:

1. Unrealistic student-counselor ratios.
2. Incomplete pupil records.
3. Lack of counselor-employer contact.
4. Lack of availability of guidance to graduates.
5. Absence of follow-up routine.
6. Ignoring students having special difficulty.
7. Poor physical facilities in which to carry out function.
8. Lack of differential means to identify student interest and aptitude for entrance into various programs.

Although there were some instances of active advisory committees working closely with the schools, in most instances the best that could be said is that they were in existence. The major weakness was that the advisory committees were not actively involved in the vocational programs. The failure to involve the members of the committees in these programs affects not only the programs themselves but also the abilities of the schools to place their graduates and to obtain community support and understanding.

These weaknesses were cited in the use of advisory committees:

1. Their absence in many cases.
2. Too few meetings.
3. Used only on call.
4. The use in name only.
5. Large employers were not represented.
6. Possibility that local labor organizations were ignored because they were hard to work with.
7. Presence in only a few cases of both craft and general advisory committees.
8. Extension of vocational education to comprehensive high schools planned in several cities without aid of advisory committees of any type.

The labor and management representatives on the visiting team noted the following weaknesses occuring in all cities:

1. Vocational program's generally poor image.
2. Pessimistic point of view on part of many employers, especially large ones.
3. The lack of a concept by the community of the vocational program or school as an effective institution for the preparation of its future work force.
4. Guidance that appeared to be directed substantially toward transfer programs (post-secondary).
5. Limited choice (breadth) of programs or offerings.
6. Lack of functional advisory committees.
7. Limited operating funds.
8. School administrators who appeared to be conservative in their desire to use the full resources of the community.

There were some strengths and weaknesses that appeared to be related to the size of the community.

The small communities were judged to have the best overall vocational curriculum both in quality and in the proportion of students enrolled. The major strength seemed to lie with the administration where there was good communication and hence an understanding of the goals of vocational education across all levels. The staffs in the small communities were active professionally and kept informed of changing conditions that affected their programs. As a result, instructional programs were current and well-organized.

The medium-sized communities presented a picture of contrasts. They had the best physical facilities, and the administration provided proper supplies, equipment and maintenance. The programs, however, were narrowly conceived and students were not attracted in sufficient number to fill all available work stations. There was also some lack of rapport among the staffs stemming from the degree of compartmentalization.

The only strength noted for the large cities was the breadth of the vocational programs. The wide variety of offerings and the flexibility in scheduling suggested programs could be designed to fill the needs of most students. Increased efforts were being initiated to help those students not now served.

The major weakness in the large cities seemed to be the position vocational education held in the administrative structure. It was difficult for the vocational education personnel to influence the major policies and educational goals of their systems. Consequently, adequate resources were not allocated to vocational education and facilities were outmoded, insufficient supplies were available, maintenance was poor, and in-service training was lacking. The result was the low proportion of students enrolled in vocational programs.

CHAPTER 5

THE VOCATIONAL PROGRAMS

In the preceding chapter the non-curriculum aspects of vocational education were discussed. It is the purpose of this chapter to assess the individual vocational programs: vocational agriculture, distributive education, technical education, trade and industrial education (boys and girls, separately), office occupations, home economics, and related academic subjects.

The purpose of this assessment is not simply to evaluate the programs in the nine communities but rather to point out certain strength and weaknesses which will permit other communities to learn from the assessment. This evaluation provides administrators and staff an opportunity to compare their programs with those in the communities studied. The strengths and weaknesses found by the members of the visiting team may suggest ways and means by which the programs might be improved.

The analysis of each program is reported separately. Each analysis covers the program's aims and objectives, physical facilities, instructional staff and programs, guidance-placement-follow-up, adaptation to socio-economic changes, and a general summary.

SECTION I: VOCATIONAL AGRICULTURE

By definition agricultural education is:

> ... a systematic program of instruction for public school enrollees, out-of-school and post high school youth, and established farmers, organized for the purpose of improving agricultural methods and rural living. Objectives are to develop abilities to: make a beginning and advance in farming; produce farm commodities efficiently; market commodities advantageously; conserve soil and other resources; manage a farm business; maintain a favorable environment and participate in rural leadership activities. (American Vocational Association, 1964).

Agri-business is defined as:

> ... an inclusive term which embraces a cluster of agricultural occupations pertaining to the business and/or management phases of manufacturing, servicing, processing, and distribution of the products going into and/or coming from farm production. (American Vocational Association, 1964).

According to these definitions, there were no vocational agriculture programs in the small communities, and apparently none was contemplated. This was particularly surprising in the case of one city where agriculture played an important role in the local economy. Thus, the discussion of vocational agriculture programs will refer only to the programs found in the medium-sized and large communities. There was one program in a medium-sized community (in the county vocational school in Lewis) and two in the large cities (Quinn and Randall).

The large city program in Randall did not prove on investigation to be a true vocational agriculture program. The program was not Federally reimbursed, consisted of one major out of the possible five, and 72 per cent of the students enrolled in it were following an academic program. The occupational objectives of the students enrolled in the agriculture courses were not clearly defined.

The vocational agriculture program in Lewis had been in existence for some time. In Quinn it was comparatively new and was an outgrowth of a previous exploratory course in horticulture. The aims and objectives differed with the courses studied. Some students were enrolled in pursuit of a vocational program, while others had a purely avocational interest. In this particular community, the citizens' appreciation of growing plants and well-landscaped areas had created a need for workers with specialized horticultural skills, and the vocational agriculture programs (with an emphasis on horticulture) were instituted in response to this demand. In addition to horticulture, there was a program in the processing and marketing of produce. Cooperative work experience had been built in as part of the latter program.

Aims and Objectives

It was not the aim of the agricultural programs observed to train students to become farmers, nor to teach agriculture as it is taught in rural areas. Rather, the primary aim was to train students with a marked degree of proficiency in certain agricultural skills. In the medium-sized community the curriculum concentrated on floriculture and horticulture and was designed to train for specific occupations in depth and breadth. All students had a vocational goal. Other occupations in agriculture, such as agri-business and agri-mechanics, had not been considered.

In the large city, as has been mentioned, students were able to pursue a vocational program leading to occupations in horticulture and agri-business. In both communities the vocational agriculture programs concentrated on occupations related to horticulture and floriculture and were not concerned with soil conservation or animal husbandry.

Physical Facilities

The physical facilities for agricultural education in the single medium-sized community were the best to be found. One important feature observed was that the school owned sufficient land for development of the program and recently had added a propagating house. This was not true in the large city where the limited amount of soil available was considered a serious weakness. One school had about an acre of tillable land which was not adequate for the scope of the program planned. The other school was without acreage, except for the school grounds proper (class activities were limited to the greenhouses, cold frames, school lawn, and athletic field). Although the medium-sized community obtained a slightly higher rating the facilities of all the schools were rated good to excellent, regardless of community size. In every case, there was sufficient work room for the students, and the equipment paralleled that used in commercial operations.

Weaknesses, in addition to the lack of land in the large community, were few. In one case, the rear of a commercial-size greenhouse was used for classroom and office space. Not only was this considered too costly a facility for a classroom, but it was also inefficient, as the space was needed for growing and experimentation and it was impossible to darken the room sufficiently to use audio-visual aids. In the large community, failure to conform adequately with safety standards concerning installation of equipment was observed.

Additions which, if provided, would greatly enhance the programs physically were plastic grennhouses, refrigerated coolers, increased storage space, and, in the case of the large community, new facilities. But on the whole the physical facilities and their maintenance were considered adequate despite these limitations.

Instructional Staff

As might be expected the vocational agricultural staffs in all communities were small. In Lewis there were two instructors and in Quinn there were four in both high schools combined. All were capable, well-prepared, and enthusiastic about their students and their work. The academic emphasis and formal education of the teachers varied considerably (from no degree to a master's). The same held true of practical work experience. One teacher had a quarter century of experience whereas some of the other teachers had relatively little. Regardless of community size, a spirit of cooperation was found within the staff. Their strengths and weaknesses complemented one another. Particularly noticeable was the teachers' interest in improving their programs and keeping them up-to-date.

Instructional Program

The instructional programs were rated "good," regardless of size of community, although the programs varied in content and breadth. In Lewis, two somewhat integrated courses of study were found -- ornamental horticulture and floriculture. Ornamental horticulture was geared to the slower students and those who completed the course of study were considered semiskilled workers, whereas the floriculture graduates, with two years of production and two years of design, were considered fit to qualify as skilled workers upon graduation.

Flower arrangement was considered part of floriculture, and the students made use of both natural and artificial flowers in creating their designs. The teachers were well aware of the impact that artificial flowers were making upon the fresh flower market and thought that it was important to incorporate the subject into their courses. The few girls enrolled in vocational agriculture in this community were in floriculture. Much of the work was done in groups, and the students played a part in the evaluation of both their own work and that of other students. Few paper and pencil tests were used in evaluation of student progress. The teachers concluded that such tests might prove of questionable value, as many of the students were not quite of average ability and were often very poor readers.

Courses of study in Lewis were developed with the aid of an advisory committee and time allotments were based on job analyses. The class was organized so that each student group had a foreman who was responsible for the crops and each crop was grown with a profit motive. Students were dealing with living plants and they were well aware of it. For these reasons, dependability and responsibility were necessary, and the development of these traits was a planned part of the program. Mistakes or neglect could have costly effects and result in a possible loss of an entire crop.

Although the vocational agriculture program in Quinn was very different from that in the medium-sized community in response to community needs and physical plant limitations, it received the same over-all rating. However, its strengths and weaknesses were somewhat different. Where the medium-sized community had relatively little breadth, but went into considerable depth in the offerings, the large community offered a variety of courses with little depth. Courses were not developed from job analyses at the time the study was made. There was a fairly extensive adult program, and the teachers thought that their adult classes were most challenging and helped keep them up-to-date.

As has been mentioned, the large community program was quite new and had been established on the basis of a survey of the needs of the city in each of the horticultural occupations. There were plans to extend the program to two or more schools, so that more students would be able to take advantage of the offerings.

In Quinn, too, a conscious effort was being made to make the student dependable, responsible, and fully aware of the fact that he was dealing with living things which needed to be carefully nurtured. As has been stated, the community had long been interested in its parks and recreational areas. The agriculture staff was able to coordinate the students' varying activities with the local garden clubs and with the elementary school civic program.

In one of the schools, many horticulture students were below average in intelligence and many had been involved with the law. The instructor was providing a very successful program for them. One project involved the growing of transplants which were distributed to elementary students for home garden projects. On Arbor Day, the students formed teams of "tree planting experts" and went to schools throughout the city to plant trees and demonstrate to other classes. These students were also charged with maintaining the school lawn, which was a part of their learning program. This proved to have two highly desirable side effects. Property damage became negligible, since the students were involved in the grounds care. In addition, a sense of pride developed in the neighborhood, and lawns adjacent to the school were better kept.

Lewis rated much higher in the teaching of safety around machinery. Quinn was weak both in this area and in teaching the management of record-keeping in some programs. However, it did a good job of coordinating agriculture with other vocational areas -- particularly the business department.

The program relative to the processing and marketing of produce was the newest and the most exciting to the staff. Cooperative work experience had been built into the program, and many of the students were getting work experience in the produce departments of large food markets. However, the securing of work stations proved to be much harder than the teachers had anticipated and not all students had been placed.

Guidance, Placement, Follow-Up

The guidance department, as such, was not involved with the agricultural students. Once the students were enrolled in the programs, most of the guidance was turned over to the vocational staff. This was particularly true in Lewis where the teachers had very close relationships with their students. In this school, the teachers placed the students and maintained contacts with them after graduation. In fact, many of the graduates were in business in the area and often returned to the school for meetings and visits and served as advisory committee members. They played an important role in keeping the teachers aware of the changes taking place in the occupation.

The guidance counselors in these schools did a good job of making the programs known to counselors and students in feeder schools, although there was some question as to the soundness of admission standards in Lewis. In Quinn the recruitment program was built into the total educational program, beginning in the elementary school. Guidance counselors were told not to send a student to the program unless he had a sincere interest in horticulture. Due to the stimulation of this interest early in the school experience, students were attracted to the vocational horticulture program and recruitement did not appear to be a problem.

Socio-Economic Changes

While the kinds of job opportunities remained the same in both communities served by these programs, the need for workers with training in vocational agriculture had increased. In the case of Lewis, the residential building boom in the area served by the school had expanded the need for workers with training in landscaping and lawn maintenance, to say nothing of opportunities provided in maintaining parks and golf greens. At the time of the study, there were placement opportunities for 20 graduates, and there would probably only be six available. Job opportunities had also increased in Quinn, stimulated to a great extent by the city's urban renewal projects. The limited enrollment can be readily seen in Table 5.1.

Summary

The programs observed in vocational agriculture were good in most respects. They were geared to community needs -- one based on a recent community survey and the other constantly up-dated as a result of good communications and articulation among tradesmen, teachers, and former students. Offerings in Lewis appeared severely limited, and it seemed desirable to plan for program expansion to include agri-business and agri-mechanics.

The facilities and equipment, while adequate in both communities, could stand general improvement and up-dating even though expansion was projected and plans were being made to extend the programs. The fact remains that training in vocational agriculture was available to a very small number of students in the nine communities studied.

TABLE 5.1

Agricultural Education Enrollment and Placement Data -- All Communities[a] (1964-65)

		Size of communities					
		Small[b]	Medium-Sized	Large		Total	
			n	n[c]	n[d]	n	%
Enrollment (Grade)							
Boys	9	--	15	58	15	88	
	10	--	6	52	6	64	
	11	--	7	65	127	198	
	12	--	2	56	82	140	
Girls	9	--	2	17	2	21	
	10	--	2	21	2	25	
	11	--	--	12			
	12	--	--	8			
Total (9-12)			34	289	234	537	.05[e]
Placement							
Number of Graduates		--	6	21	86	113	
Placed in Occupation or Related		--	4	13			
Armed Forces		--	1	2			80[e]
Higher Education		--	0	10			
Unavailable or Unrelated		--	1	--			
Unemployed		--	0	1			
Unaccounted for		--	0	0			

[a] Source: Data provided by school administrators

[b] No programs in the small communities

[c] General agriculture -- not all vocational

[d] Horticulture and floriculture in two communities

[e] Estimated -- not all data complete

The range of ability of students attracted to the agricultural programs was not wide nor was the range of skill training of the graduates. Little attention was given to providing training for the very slow students or the above average who might want to continue with an advanced curriculum at the technical level, although sufficient flexibility in electives was possible in the large community to enable a student to qualify for college entrance if he so desired. Few girls had been attracted to these programs and there was no evidence that any concerted effort was being made to increase their number. Obviously, this was an area to which serious attention and consideration could be given.

One of the most notable weaknesses of agricultural education, in general, and one which did not appear on the ratings of existing programs was the fact that six of the communities visited did not offer these courses. Since agricultural education extends beyond the boundaries of rural or farm life and includes, among other things, marketing of farm produce and soil conservation, it would appear that all communities could give serious thought to the establishment of vocational agriculture programs and recognize the benefits which students and community might derive from such offerings.

SECTION II: DISTRIBUTIVE EDUCATION

Distributive education programs were offered in at least one school in every community visited, with the exception of Baker. Baker was planning to institute a distributive education program in September, 1965, and this has since been accomplished. In all, there were fifteen distributive education programs in the nine communities. Quinn and Randall each had one secondary school in which the distributive education program was new, having been inaugurated in September, 1964. Many of the programs had been a part of the total school offerings for a number of years.

According to the American Vocational Association definition distributive occupations include:

> ...those occupations followed by proprietors, managers, or employees engaged primarily in marketing or merchandising or services. Such occupations are found in various business establishments, including, without being limited to, retailing, wholesaling, manufacturing, storing, transporting, financing, and riskbearing.

Data already referred to in Chapter 3 have emphasized the fact that increasing percentages of both males and females in all of the communities were being employed in occupations which involve the marketing or merchandising of goods or services. Thus, the need for students to receive training which leads to employment in these occupations seems clearly established.

In all communities, with the exception of one, distributive education was limited to boys and girls in the twelfth grade. In Pierce, students were enrolled in distributive education in both grades 11 and 12. It is interesting to observe that distributive education was the only reimbursed vocational education program in which approximately equal numbers of boys and girls were enrolled. This is one of the strengths of the program which was not covered within the evaluative instrument. However, it seems reasonable to speculate that placement, both in training stations and in entry jobs, afforded increased flexibility because of the numbers of students from both sexes available.

Aims and Objectives

Generally speaking, the aims and objectives of the individual distributive education programs were sound. They varied in the individual schools from "good" to "excellent" to "nearly outstanding." In only one case, (Miller) was it felt that the aims and objectives were so broad that they were meaningless. The course was opened to students of varying needs, abilities, and interests. There was every indication that these were being met by the on-going programs. All of the programs were being operated on a part-time, cooperative basis and there were no indications that the coordinators were having difficulty in placing the students assigned to them. In the medium-sized communities there was, however, evidence that many students did not receive sound guidance prior to selecting and entering the distributive education program.

In all schools, enrollments were low. In Miller, enrollments had actually decreased. On the other hand, in Clark, twice as many students applied for distributive education as it was possible to accommodate in the program. It was generally found that, although the aims and objectives of the programs conformed very well to the American Vocational Association definition previously quoted, neither coordinators nor administrators gave much evidence of planning to expand existing programs (with the notable exception of one school in Quinn).

Two specific instances of new approaches to distributive education are worth referring to. One was the practice adopted by one comprehensive high school in Lewis where students, who generally would be designated as following the "general" curriculum, were assigned to distributive education. The program in this school prepared the students for a cluster of retailing occupations and not for specific jobs.

Students, many of whom left the community to work while retaining their residence, were prepared for employment in the large cities. This arrangement proved very successful in this school. The other novel practice observed has been referred to in the section on vocational agriculture. In Quinn, the coordinator of distributive education and the horticultural instructors cooperated in starting a course in agri-business. Although this program was comparatively new at the time of the study, the staff and the students were very enthusiastic and were cognizant of the potential benefits which could be derived from such cooperation between vocational areas.

Physical Facilities

The physical plant and hardware required to conduct a quality distributive education program are much less costly than for other vocational education programs. In some of the communities visited, particularly those in which there were new physical plants, the facilities for distributive education were considered superb. In these cases, the facilities were such that a laboratory type of operation could be conducted.

In contrast to these excellent facilities, some communities had inadequate facilities. In Miller, the physical plant consisted simply of an old shop room. The amount of equipment had not been expanded to meet the needs in this particular school. In one of the comprehensive high schools in Lewis, the coordinator thought that the facilities were very good.

However, the visiting team thought otherwise, and judged them only "fair." Some of the schools in Pierce had adequate facilities available but were carrying on a very limited operation.

Generally speaking, although their physical facilities were adequate to conduct the present programs, the schools had done little to expand to meet present or potential student or community needs. Although many of the programs conducted a retail store as part of the program, little was being done in the way of making laboratory-type instruction available to the students. There was difficulty in some large city schools in obtaining quick and efficient maintenance of equipment. Often considerable red tape stood in the way of needed repairs.

Instructional Staff

The instructional staff in most programs was rated "good" from the standpoint of personal qualifications, educational preparation, and practical experience. Some instructors in Pierce and Quinn lacked practical experience in retailing. In only one instance was a coordinator rated as "fair" in the area of personal qualifications. (It must be observed, however, that this did not appear to have an overall adverse effect upon the quality of the program.) Many of the program coordinators appeared to exhibit considerable leadership ability. They recognized the opportunities in retailing which were available in their communities and were very eager to gear their programs accordingly. In some cases it was found that the coordinators carried very heavy workloads. This tended to limit their opportunities to do as much field work as is needed to conduct a quality program of this nature.

It was interesting to discover that the coordinator in a comprehensive high school in Lewis was also a part-time assistant manager in a large department store. The visiting team did not think that this part-time job detracted in any way from his ability to do a first-class job as coordinator.

Instructional Program

Although no programs in any community were rated "poor," three programs (one in a medium community and two in large communities) were judged on an overall basis to provide "fair" instructional programs to the students enrolled. On the whole, the distributive education programs were considered "good" to "excellent," which is what one would expect, based on the findings discussed so far in this section.

Although the program itself gave the impression of warmth and genuine concern for the students, it was only in the small communities that the students appeared to be truly interested in their work and both motivated and challenged by the instruction they were receiving. In the case of Miller, where the aims and objectives were considered poorly defined, the instructional program itself appeared to be a scattering of topical headings. The only textbook used in the course was out-of-date. In Randall also, the programs followed a pattern of being "bits and pieces." The teacher-coordinators' adversion to the use of multiple textbooks severely limited the quality of the program. In both of these communities new approaches could be developed to handle the subject matter content.

In one school (Pierce) the teacher-coordinator was so busy running the sale of baked goods made in the school that he had little interest in selling any other items than pencils and tablets. This practice was observed to limit severely the effectiveness of the coordinator and the benefit which the students could derive from the program. On the other hand, excellent practices were also enumerated. In many schools, instructional materials were up-to-date and the subject matter offerings were very well placed sequentially. One practice which appeared to work out extremely well was that the coordinator in one school in Lewis also taught related English for distributive education students. This course was geared particularly to the needs of students in distributive education and appeared to be an excellent functional addition to the total program. In many of the other schools, related English was considered part of the distributive education curriculum but was taught by other faculty. Some of the teacher-coordinators taught a course in salesmanship or introduction to retailing to eleventh grade students, many of whom enrolled in distributive education in grade twelve. This was a sound practice, advantageous to students and program. When this sequence of courses is available over a two-year period, it may be speculated that some of the problems inherent in student guidance and selection would be eliminated, as the coordinator himself could present the aims and objectives of the twelfth grade program to the students.

It was observed that failure to provide for the educational and training needs of out-of-school youth and adults was a general weakness of distributive education, regardless of community size. Randall was making a strong effort to provide such training to out-of-school students but in the other communities little or nothing was being done in this area. Adams did offer a brief ten-hour course in pre-Christmas training to in-school youth, out-of-school youth, and adults. An adult program in distributive education was part of the future plans for a comprehensive high school in Lewis, but at the time of the study this program did not exist.

Guidance, Placement, and Follow-Up

The attitude of the counselors toward distributive education and their understanding of the aims and objectives of the program would have had an effect on the way in which information was disseminated to prospective students. In some of the schools visited there was a close working relationship between the guidance counselors and the distributive education staff. Although in many schools counselors seemed to be informed about the program, the closest working relationships were found in Clark and Pierce. As has been previously noted, in Clark there were twice as many applicants each year for entrance into the program than current space allowed. Therefore, guidance counselors did not have to use the program as a "dumping ground" and it was not their policy to do so. As a result, the enrollment in distributive education was made up of students who had been reasonably well screened before admission to the program. This screening process served to facilitate placement of students in training stations.

Although counselors and coordinators worked together closely, the coordinators assumed the responsibility (either by design or by default) of placement and follow-up. In most cases guidance had no responsibility for placing these students in full-time jobs after graduation. Counselors in one school in Lewis kept in contact with the local employment service, but this practice was not usually observed in other schools.

Generally, every effort was made to place students for work experience in distributive occupations with employers where they would have an opportunity to stay on as regular employees after graduation. The one exception was Miller, where the students had not been placed in work situations from which they could profit in line with the aims and objectives of the program. Of the 22 students, three were telephone operators, three worked for the Board of Education, and two were employed as baby sitters. It would take an extremely liberal interpretation of what constitutes distributive education to accept this work experience as a part of the program.

The bulk of the work in the follow-up of graduates was assigned to the teacher-coordinator. The follow-up could be improved by cooperation between the guidance office and the coordinator. The failure to organize follow-up procedures in this way was a general weakness of the distributive education programs and guidance.

Socio-Economic Change

In the small and medium-sized communities socio-economic changes had affected the program in a positive way. The development of suburban shopping centers and the expansion of chain stores provided many more opportunities for employment than had previously existed. Placement in training stations and in permanent employment was much easier than it had been in the past. However, some of the coordinators were experiencing difficulties in the matter of working hours. Many, if not most, shopping centers are open until 10:00 p.m. and students are allowed to work until 9:00 p.m.

In the inner cities of Lewis and Miller and in all the large cities, particularly in certain neighborhoods, fewer and fewer students were going to college. In many instances, the caliber of the students was lower academically than it had been in the past, and it was thought that many students currently enrolled needed job training in distributive education more than had previously been the case. Although one teacher-coordinator in Quinn stated that he expected to provide opportunities in these programs for twice as many students during the following school year, in general there was no indication that the programs would be greatly expanded in the immediate future.

Enrollment and placement data for distributive education in all communities indicate that, although the programs were generally doing a commendable job in providing vocational education in this area, the number of students involved was extremely small. In none of the communities could it be said that the employers could look to the school as a major source of trained personnel. One is forced to conclude that the employers were training their own personnel, or possibly that men and women employed in retailing were receiving no training at all.

It is interesting to speculate upon the possible relationship between the obvious dearth of trained personnel for retailing establishments and the growth of self-service operations. One also is led to wonder if the lack of training opportunities in the public secondary schools over a period of time has had any impact upon the decrease in the proportion of persons employed as managers and proprietors, as was noted in a pervious chapter. When one considers that at the time of the study the combined 9-12 secondary school enrollment was in excess of 153,000 students, while a combined total of 326 students graduated from the distributive education programs during the previous school year (1963-64), it is quite clear that the penetration rate is infinitesimal. Table 5.2 shows the limited effort being put forth to provide this type of educational opportunity for high school youth.

Summary

Most of the distributive education programs visited appeared to be providing some vocational training to the students enrolled. In some instances the work being done was excellent. It was observed that the formation of advisory committees would do much to strengthen some programs. Their lack was particularly noticeable in the medium-sized communities. It would appear that advisory committees, which play a fundamental role in curriculum planning and community relations in vocational education as a whole, would be extremely important to distributive education. Since the cooperative work experience feature of distributive education programs involves the work supervisor in an educational role, close relationships between school and community must be established and maintained. The formation of advisory committees could do much to promote cooperation and understanding necessary for successful, quality programs in distributive education.

One unusual practice observed in Quinn deserves comment. One afternoon a week is used to bring students back to the classroom in homogeneous groups. The afternoon is spent with a specialist in some phase of distribution in which the student is employed. Therefore, the coordinator does not have to be a specialist in everything. This practice proved to be extremely effective.

The greatest overall weaknesses were the lack of organized follow-up procedures, the limited enrollments, and the failure to provide training to out-of-school youth and adults.

SECTION III: TECHNICAL EDUCATION

Technical education programs were offered to secondary school students in only four of the nine communities visited. Programs were found in one small community (Adams), in two medium-sized cities (Kimball and Lewis), and one large city (Pierce). The breadth of the offerings and the extremely small numbers of students involved in this vocational area are revealed in Tables 5.3 and 5.4. Although it is evident that the small communities were making the greatest effort to provide vocational training in the technologies, only 2.5 per cent of their student population was taking advantage of these offerings.

The placement data on the 1964 graduates from the technical programs indicate that the graduates, in addition to being few in number, did not generally enter the occupations for which they had been trained. The numbers of students listed as placed in the occupation or a related occupation could not be considered as having made any real impact on the needs of the local labor market.

Because of the small number of programs involved, it is not possible to generalize at length about technical education as it was provided in small,

TABLE 5.2

Distributive Education Enrollment and Placement Data -- All Communities[a] (1964-65)

		Size of Communities							
		Small[b]		Medium-Sized[c]		Large[d]		Total	
		n	%	n	%	n	%	n	%
Enrollment	(Grade)								
Boys	11	--	--	--	--	10	--	10	--
	12	25	2.1	47	1.3	34	.2[e]	106	.5[e]
Girls	11	--	--	--	--	28	--	28	--
	12	26	2.1	52[e]	1.4[e]	42[e]	.2[e]	120	.5[e]
Totals	(11-12)	51	2.1	293[e]	1.3[e]	579[e]	.5[e]	1022[e]	.7[e]
Placement									
Number of Graduates (1964)		50	--	102[e]	--	174[e]	--	326[e]	--
Placed in Occupation or Related		37	74.0	81	79.0	57	58.8	175	70.3
Armed Forces		4	8.0	10	10.0	17	17.6	31	12.4
Higher Education		5	10.0	4	4.0	6	6.2	15	6.0
Unavailable or Unrelated		4	8.0	5	5.0	7	7.2	16	6.4
Unemployed		0	--	0	--	2	2.1	2	.8
Unaccounted for		0	--	2	2.0	8	8.2	10	4.0

[a] Source: Data provided by school administration

[b] Data from all (3) schools

[c] Data from only seven schools visited

[d] Data from only fifteen schools visited

[e] Projected Data to Include All Schools -- Vocational Enrollment Only

TABLE 5.3

Technical Education Enrollment and Placement Data -- All Communities[a] (1964-65)

		Size of Communities							
		Small		Medium-Sized		Large		Total	
		n	%	n	%	n	%	n	%
Enrollment	(Grade)								
Boys	9	0	0	47	1.4	0	0	47	-
	10	55	5.8	62	1.4	80	-	197	-
	11	51	4.1	39	1.0	106	.5	196	.8
	12	36	3.1	39	1.1	76	.4	151	.7
Girls	9	0	0	0	0	0	0	0	-
	10	11	1.2	4	.1[e]	0	0	15	-
	11	12	1.0	1	-[e]	2	-[e]	15	-[e]
	12	2	-	0	0	1	-[e]	3	-[e]
Totals	(9-12)	167	2.5[b]	192	1.0[c]	265	.5[c]	624	.4[d]
Placement									
Number of Graduates (1964)		35	-	37	-	56	-	128	-
Placed in Occupation or Related		5	14.3	8	21.6	36	64.3	49	38.3
Armed Forces		11	31.4	8	21.6	11	19.6	30	23.4
Higher Education		7	20.0	16	43.2	9	16.1	32	25.0
Unavailable or Unrelated		12	34.3	3	8.1	0	0	15	11.7
Unemployed		0	0	0	0	0	0	0	0
Unaccounted for		0	0	2	5.4	0	0	2	1.6

[a] Source: Data provided by school administration

[b] Per cent of boys and girls; boys only 4.2%

[c] Per cent of boys only

[d] Per cent of boys and girls 10-12; boys only .7%

[e] Less than .1%

TABLE 5.4

Technical Education Programs -- All Communities[a] (1965)

Program	Small	Medium-Sized	Large	Total
	Size of Communities			
1. Chemical, Nuclear Technology	-	1	-	1
2. Chemical Technology	-	1	-	1
3. Computer Technology	1	-	-	1
4. Electric Maintenance	-	1	-	1
5. Drafting, Technical	1	-	1	2
6. Electrical Technology	-	1	-	1
7. Electronics, Industrial	1	1	2	4
8. Mechanical Technology	-	-	1	1
9. Tool Design	-	-	1	1
Total	3	5	5	13

[a] Source: Data provided by school administration to visiting team, school year 1965.

medium-sized, and large communities and to make distinctions based on community size. The discussion which follows is general in nature and will discuss observed strengths and weaknesses.

Aims and Objectives

By definition, technical education is:

> . . . education to earn a living in an occupation in which success is dependent largely upon technical information and understanding of the laws of science and principles of technology as applied to modern design, production, distribution, and service . . . . (American Vocational Association, 1964).

It was found that in most communities the technical offerings had been designed in accordance with this definition. The aims and objectives of the programs were worthy and the programs themselves had been established to meet the needs of the student or the community or both.

It must be pointed out that the community of Adams, faced with declining employment opportunities, had adopted an educational philosophy which stated that students should be provided with skills that are in demand even if it required them to move to another community to secure employment. In technical education, as well as in other major educational areas, the school officials in Adams thought that the needs of the student were of paramount importance. In fact, students who intended to continue as engineers were accepted into the program. Because this was a type B program in which related instruction is taught in the shop or laboratory, the students were able to choose their electives in light of their vocational and educational goals. Considerable flexibility in the program made it possible to meet the varying needs, abilities, and aptitudes of individual students.

In Kimball there was some question of the ultimate aims and objectives of the technical programs at the high school level, since employment did not appear to be the major objective of the programs or the students enrolled in them. The fact that 43 per cent of the 1964 graduates did continue on to higher education raises the question concerning their vocational goals.

One of the major weaknesses in the technical programs was the failure on the part of the schools to provide for sufficient part-time cooperative work experience. The county vocational school in Lewis had instituted a part-time cooperative program the week before the visiting team arrived. In the other communities the cooperative work experience was either sorely needed or far too limited.

Physical Facilities

The technical program in Adams was housed in the basement of a building constructed in 1905. The physical plant had, however, received outstanding maintenance over the years and the facilities were adequate. The administration was planning to construct a new vocational-technical school at an early date.

Despite minor problems created by limited storage space in some schools, the physical facilities (including plant and hardware) were rated good to excellent. In Pierce considerable red tape was necessary to effect maintenance of equipment. In all schools there was ample work space for each student. In fact, the facilities could have accommodated more students than were being served.

Instructional Staff

The instructors appeared, in most instances, to have an appropriate background of experience in the fields being taught and adequate professional teacher preparation, although in Kimball the employment experience of the staff seemed somewhat limited. The greatest weaknesses in the staff in Lewis were in the areas of professional improvement and active participation in professional organizations. The fact that many of the day instructors also taught at night was felt to be a strong contributing factor to this weakness. In Adams, the school provided each teacher with technical journals related to the field in which he was teaching, plus the opportunity to develop a technical library. This practice contributed much to keep the staff up-to-date and aware of changes in their specialty areas.

Instructional Program

There was a close relationship and excellent rapport between staff and pupils. In part this was due to the low pupil-teacher ratio found in all schools. The students seemed highly motivated, particularly in the laboratory and related classes. In Lewis they appeared to be less motivated in the academic classes to which they were assigned.

In Lewis the development of the technical programs was not based on job analyses of the technologies. Although a revision of the courses of study had been completed, the program was based on empirical observations made by the instructional staff rather than on job or occupational analyses. In Adams all of the programs were based on analyses of the individual technologies and this fact seemed to be directly related to the appropriate equipment and the comprehensive courses of study which had recently been updated.

In all communities there was a sound relationship between theory and practice. There was sufficient repetitive practice to enable each student to acquire a reasonable degree of skill. It was found that the manner in which the instructional program was meeting the needs of the students by providing realistic technical occupational training was good. It should be noted, however, that in no school was the instructional program given an overall rating of "excellent."

Again the small enrollment in the technical program must be noted. Table 5.3 indicates that the technical program accounted for less than one-half of one per cent of the total student enrollment in the communities under study. The apparent need for advanced education is notable since one-fourth of the graduates went on to post-secondary education.

Even more significant than the small enrollments was the lack of breadth in the offerings themselves. Even in the large communities, only five programs in technology were offered (Table 5.4). This is the same number as that offered in the medium-sized communities, but the large communities had two industrial electronics offerings.

Guidance, Placement, Follow-Up

It was in the area of guidance, placement, and follow-up in which the largest numbers of weaknesses were recorded. Except in the case of the county vocational school in Lewis, the extent to which guidance was an integral part of the vocational-technical department could be rated only as poor or even ineffective.

Although the students selected for the technical program were those who could profit from it, there was some question as to the appropriateness of the technical objectives of many of the students. As was previously stated, the guidance role in student selection in Kimball appeared to be oriented differently since immediate employment did not seem to be a major objective of it. It was evident that many students who planned to enter college after graduation were referred to the three year technical programs. Although in no school was there any doubt of the high quality of students referred to the technical education programs, they may not have been the most desirable offerings for some of the individual students.

The counseling facilities were poorly located and generally uninviting to students who might care to browse through the occupational literature. In none of the communities did the counselors make it a practice to develop and maintain contacts with prospective employers or the local employment service. The placement of the few graduates available for employment was the responsibility of the coordinator. The vocational director in Adams, an exceptionally well-qualified individual, was responsible for all aspects of the day and evening programs which included informing potential students and their parents about the vocational and technical offerings. In general, the guidance contribution to the technical education effort was minimal with the possible exception of the county school in Lewis.

Socio-Economic Changes

Changing socio-economic conditions appeared to have had little impact on technical education offerings in the communities studied. If it is assumed that the technical offerings in these communities were initiated in response to employment needs and trends, then it could be asked why there were not more students enrolled in the programs and why was there not a larger number of offerings? Adams had managed to attract some girls to its technology offerings, but the other communities combined enrolled only eight girls in all of their technical education courses. Five of the communities visited, including two large cities, had not seen fit to offer technical education in their secondary schools.

It should be recognized that the technical education programs had not been in operation long enough to make possible an assessment of them in terms of their potential impact. At the same time it was obvious that their extremely small output could not have an appreciable effect upon the economy of the community.

Summary

From the standpoint of the general checklist, the aims and objectives of the technical education programs that were being conducted, as well as the instructional programs which have been designed to implement these objectives, were good to excellent in all elements. The greatest weaknesses in the schools visited were: failure to establish or use effectively advisory committees, the lack of part-time cooperative work experience in conjunction with the technical program, and the extremely small number of boys and girls enrolled.

Although the medium-sized cities had more programs, they also had more low ratings. They were particularly weak in the use of their advisory committees, the use of part-time cooperative programs, and in the amount of class time allotted to technical skill training. These medium-sized communities were to be commended, however, for making technical education available to students in a wide geographic area. The small community was rated "excellent" in its use of advisory committees. However, the class time allotted to technical education in this instance was determinated by scheduling requirements rather than educational needs. Needless to say, the fact that only one small community and one large city offered technical education (according to the approved definition) to its secondary school youth reveals a serious weakness.

All cities attempted to have technician-oriented, rather than engineer-oriented, students in their programs. The students were mechanically and scientifically inclined and were given the opportunity to acquaint themselves with the latest technological advances. The related mathematics and science courses were presented in a meaningful way. The visiting team did observe that in Kimball the graduates of the technical program were urged to continue their education in two-year technical institutes.

The relationships between the guidance departments and the technical programs were poor. The placement function was taken over by the vocational department and the graduates made little or no use of guidance services.

In spite of the strengths and weaknesses pointed out, the over-all rating for technical education in all communities was consistently "good." The notable exception was guidance in which the county vocational school was the only school to receive an over-all rating of "good." In all other cases, the guidance services provided obviously were not satisfactory.

SECTION IV: BOYS' TRADE AND INDUSTRIAL EDUCATION

Each community visited had at least one school in which trade and industrial programs were available. As has been indicated previously the largest numbers usually identified as "vocational students" were enrolled in the trade and industrial programs. Therefore, it might be expected that for many people in the community, vocational education would be synonymous with trade and industrial education. If so, the quantity and quality of the trade and industrial programs would be an important measure of vocational education in general. The support and understanding given to the trade and industrial programs by the administration and staff, and the effort put forth to plan and implement quality programs could serve as an indicator of the type of vocational education one could expect to find in these communities.

By definition, trade and industrial education is:

> ...instruction which is planned to develop basic manipulative skills, safety judgment, technical knowledge, and related occupational information for the purpose of fitting persons for initial employment in industrial occupations and upgrading or retraining workers employed in industry (American Vocational Association,1964).

Trade and industrial programs, defined in this manner, were offered in all large, medium-sized, and small communities. Auto mechanics, drafting, electrical shop, machine shop, and welding were available in all communities and attracted the largest numbers of students almost all of whom, according to school records,were employed after graduation. (See Tables 5.5 and 5.6.)

In general, there had been little change in the trade and industrial offerings in the years just previous to the study. In planning for new schools it was obvious that the trade and industrial offerings would not be greatly different than those presently or traditionally offered.

Six schools in the large cities had non-reimbursed programs which were vocational in orientation. These programs in many ways resembled trade and industrial offerings, but were designated as industrial arts or trade-preparatory courses. Some of these programs were in a transitional stage. In one city it was anticipated that this curriculum would be conducted as a genuine vocational offering in the following school year. In another, the trade preparatory courses were designed to furnish some vocational training to students who, in all probability, would not remain in school throughout the 12th grade.

Generally speaking, the trade and industrial programs were good. When all available data were analyzed, the strengths outnumbered the weaknesses, regardless of community size. All things considered, the best trade and industrial programs were found in the small communities. The small communities had many strong points which were not strengths in all schools in medium-sized and large communities. It was interesting to note that the small communities had no weaknesses which were not shared to some extent by all communities. This is not to say that all programs were good in every respect. They were not. There was room for improvement in all of the trade and industrial offerings in most schools, regardless of community size, as will be indicated.

Aims and Objectives

It was judged that the small and medium-sized communities had developed their trade and industrial education programs from established needs of community and students. This was not always true in the case of the large cities. It must be emphasized that, although many programs were developed to meet student and community needs, other needs existed which were not being met. The enrollment data (see Table 5.5) have revealed that the number of students served was not proportionately large, except in small communities. Employment projections predicted shortages which enrollments at the time of the study would do little to alleviate.

It was observed that, as the needs of the communities differed, so did the communities' responses to the needs. One would expect to find a different attitude in a growing community than in one faced with declining

TABLE 5.5

Boys' Trade and Industrial Enrollment and Placement Data --
All Communities[a] (1964-65)

		Community size							
		Small		Medium-Sized		Large		Total	
		n	%	n	%	n	%	n	%
Enrollment (Grade)									
Boys[b]	9	59		174		153		386	
	10	185		361		1,885	c	2,431	c
	11	288	23.0	402	10.1	1,752	8.9	2,442	9.8
	12	214	18.4	324	8.7	1,078	6.3	1,616	7.3
Totals (9-12)		746	22.1[d]	1,261	8.3[d]	4,868	8.7[d]	6,875	9.4[d]
Placement									
Number of Graduates (1964)		199		261		1,022		1,482	
Placed in Occupation or Related		84	42.0	179	68.6	733	71.7	996	67.2
Armed Forces		42	21.0	39	14.9	137	13.4	218	14.7
Higher Education		10	5.0	13	5.0	44	4.3	67	4.5
Unavailable or Unrelated		56	28.0	25	9.6	31	3.3	112	7.6
Unemployed		4	2.0	0	0.0	8	.8	12	.8
Unaccounted for		3	1.5	5	1.9	69	6.7	77	5.2

[a] Source: Data provided by school administration to visiting team, school year 1965.

[b] Some girls included in enrollment.

[c] Not computed, as in communities Clark and Quinn, grade 10 is trade preparatory.

[d] Percentage computed on 10-12 or 11-12 enrollments.

TABLE 5.6

Boys Trade and Industrial Programs
All Communities[a] (1965)

	Community size			
Program	Small	Medium-Sized	Large	Total
1. Airframe & Mechanical Power Plant			1	1
2. Auto Body Repair & Painting		3		3
3. Automatic Heat & Installation			1	1
4. Auto Mechanics	3	3	6	12
5. Baking			2	2
6. Building Maintenance		1		1
7. Cabinet & Mill Shop	1	1	2	4
8. Carpentry	1	3	3	7
9. Commercial Art			5	5
10. Drafting, Architectural		1	1	2
11. Drafting, Mechanical	1	3	3	7
12. Dry Cleaning			1	1
13. Electrical Construction, Maintenance	1	3	5	9
14. Electronics	2	1	4	7
15. Foundry			2	2
16. Industrial Chemistry			1	1
17. Machine Shop	2	3	6	11
18. Optical Mechanics			1	1
19. Painting			1	1
20. Pattern Making			2	2
21. Plumbing	1	3	3	7
22. Printing	1	3	3	7
23. Radio & TV Servicing		1	2	3
24. Refrigerator & Oil Heat			1	1
25. Restaurant Practice			2	2
26. Sheet Metal	1	2	3	6
27. Shoe Repair			1	1
28. Tailoring			2	2
29. Trowel Trades	1	1	2	4
30. Upholstery			1	1
31. Welding	2	2	5	9
32. Woodworking		1	1	2
Total	17	35	73	125

[a] Source: Data provided by school administration to visiting team, school year 1965.

employment opportunities and a population loss. In fact, Clark, which was prosperous, had developed a quality trade and industrial program which in turn had attracted further industry, because of the availability of trained employees. One small community (Adams), faced with the fact that a substantial number of its graduates would leave the community in order to find employment, had decided to provide programs that offered potential employment opportunities on a much larger geographic scope than local needs would indicate. Plans were under way to enlarge the vocational education facilities. The underlying rationale was that, although job opportunities in some of the areas taught were limited in the community, the needs of the students to develop their vocational potential were to come first.

In the large cities one might expect to find that the changing composition of neighborhoods or districts had an effect on the aims and objectives of the trade and industrial programs. As the cultural composition of the neighborhoods changed over the years, so should the attitudes toward education in general, and vocational education in particular, be subject to change. The large cities, too, were faced with this major question: should they continue their general pattern of offering vocational education in special vocational-technical high schools to which students would have to be transported or transport themselves across neighborhood boundries, or should they have vocational-technical education available in all secondary schools in all districts? Some of the large cities were in a transitional stage in attempting to resolve this problem. Their present efforts, as well as their plans for the future, will be discussed in a later section.

The variety of trade and industrial programs available in the small communities was much more limited than it was in the other communities. In the medium-sized communities and large cities, the offerings had sufficient breadth and variety to provide opportunities for students of widely different interests and abilities. The somewhat limited offerings of the small communities were well conceived, based on job analyses, and much more apt to be scheduled in line with the needs of the programs rather than the dictates of a master schedule. In many of the schools visited, time allotments for related instruction and shop training were not considered adequate by the visiting team.

In most instances, there was little question that the major purpose of the trade and industrial programs was to prepare the students with the proper skills and technical knowledge required to make employment possible upon graduation. However, there is a difference between the stated aims and the programs designed to implement them. Not all communities were realizing their objectives with the same degree of success. In one medium-sized community, the major weakness lay in the fact that the aims and objectives of the trade and industrial program had resulted from empirical observations and experiences on the part of the staff rather than from a systematic analysis of the trades taught. One large city was earnestly trying to serve the needs of students with a wide range of abilities and had instituted courses for this purpose. Unfortunately, the course titles themselves had been poorly chosen, few people knew what they meant, and consequently confusion resulted. For instance, how would student, parent, or advisor distinguish: cabinet mill worker from cabinetmaking; auto body and fender repair from automotive maintenance; furniture upholstery from upholstery; and luncheonette service from restaurant practice?

One advantage found in small and medium-sized communities was the smaller class sizes, with an adequate relationship between the number of teaching stations and the number of students in the class. This was not always the case in the large cities. For instance, in Pierce too frequently up to 50 students were sent into a particular shop with one instructor. In one shop with two instructors and almost 60 students, the space was not adequate for this number and certainly contributed to a lower quality of vocational education.

No program in any community was handicapped by the indiscriminate assignment of outside jobs from either the community or school district. It was noted that each community proved successful in controlling the number of outside trade and industrial jobs, and used them only in ways to advance the skill training of their students. For example, in one large city, a school had devised a particularly effective method to handle commercial work. A receiving room had been provided and commercial work was done only at the time when it contributed to the instructional program.

Physical Facilities

In the small communities, the greatest variety in the quality of the physical plant and hardware for the trade and industrial program was found. The facilities ranged from the very old to the very new. The old facilities were poorly conceived and made the educational process difficult for both the staff and students. Provision for students to wash and change clothes (an important part of such programs) was lacking in several trade and industrial facilities in the small communities. Moreover, cramped quarters and lack of space for expansion were noted. Since class sizes, however, were controlled by the number of available work spaces, and good maintenance and housekeeping were in evidence, the facilities were considered adequate. The equipment, although not the newest in many cases and not placed in the most efficient location, was well kept.

All things considered, the best facilities were found in the medium-sized communities. A strength apparent in most shops was the amount of equipment provided, far more than in the small and large communities. The shop layouts were almost without exception well conceived, the washing facilities were good, and quick effective maintenance was not a problem.

In the large cities, the space provided for the trade and industrial education offering was generally rated good or better. Here the weakness was in the hardware. Some equipment was obsolete, and small tools were in short supply. Audio-visual teaching aids were often not available to such an extent as they were in the other communities. Light and power, which can pose problems to trade and industrial programs, caused no difficulties. In all communities, there was sufficient light and power for both day and evening use, regardless of the age and condition of the physical plant. With one exception, safety standards were well observed.

In half of the schools visited, storage facilities were considered woefully inadequate. There was not enough storage space provided either within or outside of the shops for supplies and certain types of equipment. This hampered the effectiveness of instruction.

Instructional Staff

Trade and industrial education programs were in good hands in all of the communities studied, with the small communities receiving the highest overall ratings. The high quality of the instructors, the total effort that they were making to meet the needs of the students, and their genuine interest in what they were doing, were reported repeatedly. Dedication to the education of youth was uppermost in the minds of the teachers.

Except in isolated instances, the teachers were highly competent occupationally. In nine out of the thirteen schools, the practical experience of the instructors was rated higher than their educational background. (It is interesting to note that the only school whose staff rated "excellent" in educational background had one of the weaker programs). In the small communities and large cities, teachers had made an effort, or were making an effort, to improve themselves through formal or informal in-service training. In the medium-sized communities the instructional staffs were weak in this respect.

Above and beyond work experience and teaching skill, the instructors must keep informed on local industrial employment trends and changes in the job itself. Instructors in small communities were generally found to be very up-to-date.

Two administrative practices are worth noting, in that they were designed to help the staff keep current. One small community provided each instructor with a subscription to a trade journal in his field. One medium-sized community permitted each instructor to visit employers in his field on the average of one day every three weeks. This practice had contributed to close coordination between the vocational programs and the local employers and had had a very favorable effect upon placement of graduates. Otherwise, the teachers apparently failed to profit from this opportunity as well as they might have since they did not show any increased awareness of technical advances and current industrial practices.

It would seem as though an up-to-the minute staff would be of paramount importance in the large cities where, as has been indicated, those in top administrative positions cannot be assumed to have vocational preparation or training. Unfortunately, this was not a strength generally characteristic of trade and industrial staffs in large cities. Instructors in half of the large city schools seemed quite unaware of changes in employment or on-the-job skills in the very areas in which they were training students.

The enthusiasm of the staff had a favorable effect upon its rapport with students, other staff members, and their superiors. In one large city there was no instance of criticism being leveled at coordinators, supervisors, or the city director, which the visiting team thought was most unusual in so large a metropolis.

This desirable relationship did not seem to exist noticeably between trade and industrial staff and guidance counselors. The teachers were not making a conscious effort to work with the counselors to effect better placement and follow-up of graduates. This was one area in which active cooperation appeared generally lacking and communications seemed to have broken down.

In more than half of the communities, the teachers were on 10-months' contracts. The failure on the part of the administration to employ teachers beyond the regular term served to limit their potential to develop instructional materials. Where the teachers had 11- or 12-months contract, more original materials had been developed, and planned revisions were much more readily done on a continuous basis.

Instructional Program

In all communities, an atmosphere of warmth and general concern for the students existed. A large part of this was due to the eagerness and enthusiasm of the staff who were dedicated in the teaching of a skill. There were, however, significant differences in the way in which the instructional programs were being handled.

The instructional program in the small communities appeared stronger than in the other communities visited. All courses of study were up-to-date and well planned (it must be noted, however, that to one small community the courses of study were not based on job analyses). There was a sound relationship between theory and practice, and as a result high quality workmanship was being expected from the students. Much of the work of the students was up to industry standards. Repetitive practice was sufficient for skill development but did not develop into meaningless drill. There were ample reference materials available in the shops as part of the instructional facilities.

In the small communities one of the most noticeable weaknesses was the lack of cooperative programs in two communities. The tremendous advantages of cooperative education to expand the trade and industrial programs appeared to be overlooked.

In a few instances, safety, especially in terms of eye protection, was missing in the machine shops; this was noted as a serious deficiency where it occurred.

The programs varied most in the medium-sized communities, making generalizations very difficult. They shared with the small communities the advantages of efficient class sizes. In the medium-sized communities, as well as the small, there appeared to be a close relationship between theory and practice, although the instructors in one medium-sized community complained that the time allotments were not adequate to cover the related mathematics and science. In direct contrast, in Miller the scheduling plan enhanced the value of its program to staff and students. Each student spent three hours in skill development and had an additional one and one-half hour in the related technical aspects of the skill (i.e., application of mathematics and science principles).

There was a close and effective working relationship between the teachers of skill training and related subjects which did not always exist between the teachers of training skill and academic subjects. In two of the communities, the instructors not only appeared to be aware of the individual differences in their students, but were making a special effort to relate their instruction to those differences. The degree of success achieved in this serious attempt to match instruction to ability was handicapped in Lewis by failure to base work on skill requirements of the job as determined by job analyses.

Although most of the communities were successful in relating mathematics and science to the occupations, they were weak in coordinating their programs with other vocational areas. There was no evidence of any serious attempts being made or contemplated in this direction. Another feature often observed as lacking was part-time cooperative work experience. In many schools, regardless of community size, this type of program, which can be an effective aid in bridging the gap between school and work, simply was not available. The lack of a cooperative program was particularly noticed in one medium-sized community which had two schools offering trade and industrial programs. One had a cooperative program and the other did not, which placed some students at a distinct disadvantage. The graduates who had had the benefit of the cooperative experience were able to secure the best jobs.

The trade and industrial program in one large city school was truly outstanding. Progress charts were in evidence in every shop and classroom, the work expected from the students was of high quality, and both staff and students were extremely enthusiastic about what they were endeavoring to do. Even in the hard-to-clean shops, the housekeeping was outstanding. It must be noted that this particular school was able to select or reject students and that it had worked out an effective method of student selection. The fact that students in the program knew why they were there may have made the difference between a good and an excellent program.

Otherwise, the programs in large cities were fair to good. Because of the large number of trade and industrial programs offered, there were variations in the programs themselves, which tended to lower the overall ratings in most cases. More students in large cities were spending their time on "projects" or activities similar to what one would expect to encounter in an industrial arts class. The quality of the workmanship required from the students fell far short of industrial standards. One of the weaknesses in most large city schools was insufficient repetitive practice required for certain skill training. In addition, theory and practice frequently did not appear to be firmly integrated. On the other hand, and as could be expected, the breadth of offerings found in the large cities was found to be substantial (See Table 5.6). No fewer than 30 different trade and industrial programs, accounting for 73 courses, were reviewed. Machine shop and auto mechanics seemed to dominate the picture, with welding, electrical construction and commercial art next in order of popularity.

Guidance, Placement, Follow-Up

The guidance departments, as seen from the perspective of the trade and industrial programs, were poor. In only four of the schools visited were the guidance departments providing adequate services to the trade and industrial programs and their students. Three of these schools were vocational-technical schools, where counselors could be expected to have special knowledge of vocational education and where the students were enrolled in programs with a vocational objective. All other guidance departments were considered, at most, only fairly effective in their relationships with the trade and industrial programs.

With the exception of the four schools where the work of the guidance departments was judged good, the same weaknesses seemed to prevail, regardless of community size. Counselor-student ratios were very bad -- almost without exception the counselors had unreasonably heavy counseling loads. Counseling loads in senior high schools varied from 280 to 600 students per counselor. The average student-counselor ratio in the schools visited was 440 to one. This may have been a contributing factor to the apparent fact that accurate student records were often neither kept nor used.

Counselors in the small communities did the best job of consulting with the vocational staff about the aims of their various programs in order to pass on this information to potential or prospective students. In two of the medium-sized communities, however, one of the greatest weaknesses was in the selection of students. There was a lack of predetermined criteria for student admission to individual programs, and appropriate guidance was not provided to students. In the large cities, as well, it was evident that only on a very general basis were there any discriminating criteria established for each of the vocational offerings, and were students chosen or advised to enter these areas on the basis of such criteria. In many instances, students selected their field of instruction purely on the basis of personal choice and these choices were not founded on organized guidance or counseling. Exceptions were, however, observed in particular schools. In some cases, student selection was handled effectively with counselors from senior and junior high schools cooperating with the vocational departments to compile clear and concise selection standards or admission requirements.

In 75 per cent of the schools in the large cities and medium-sized communities student selection had been very poor. Color-blind boys were enrolled in programs requiring color discrimination; poor readers were in programs requiring at least average reading comprehension; on more than one occasion, instructors said that they probably could not place students because they could not attain the skills required of the job. It may be speculated that this accounted, in part, for what appeared to be a lack of holding power in some programs. According to school records, the large majority of those who did graduate were placed.

As a rule, regardless of community size, counselors had not made it a practice to develop or maintain contacts with prospective employers or the employment service. This placement function, in most cases, was assumed by the vocational director and his staff. The same could be said for organized follow-up procedures. In a few large city schools, the guidance department had a well organized system of follow-up, but these schools were the exception. Primarily, such follow-up procedures as existed were conducted by the vocational department and some proved most effective. In one course, a biographical write-up of each graduate of the previous year was featured on a bulletin board. Very few schools made their guidance services available to former graduates.

Socio-Economic Changes

The small communities appeared to be well aware of the changes taking place in the area served by the trade and industrial programs. Both Adams and Baker were planning to construct new facilities, with expanded offerings. Adams, handicapped by an inferior physical plant, had shown a good amount of flexibility in the programs themselves -- adding, deleting, and extending programs in response to felt needs. Baker, due to a new administration sympathetic to vocational education, was making plans for the future which were judged sound, although its past efforts in this area were considered only fair. Clark had a new facility, although there were indications that the administration might not be willing to allocate sufficient funds to conduct quality programs. However, three new courses (carpentry, electronics and welding) had been added because industries requiring those competencies had moved into the area.

No generalizations can be made concerning the response of the medium-sized communities to the dictates of changing social and economic conditions. Little change was noted in the trade and industrial program in Kimball. The programs affected were technical in nature. However, it must be noted that some courses (mechanical drafting, electronics technician, and printing) were flexible and could be either trade and industrial or technical depending upon the non-shop courses taken. It was interesting to note that Miller intended to offer ceramics, but the program was never organized, due to the loss of a source of employment.

It was found that the trade and industrial programs in Lewis, when rated in relation to what was offered, were good. However, considered in light of its ability to meet the entire needs of the industrial community (which was growing) and all those interested in vocational education, a more realistic rating would be "ineffective." Even with the new addition under way at the time of the study, and with a proposed new high school, it was concluded that community and student needs could not be fully met. Since Lewis operated on a county vocational school basis, and many of the schools in the sending districts were small, the ability of Lewis to respond to industry and student needs appeared limited.

In the large cities, industrialization had existed for a long time, and changes in the industries themselves -- from the manufacture of durable to non-durable goods -- had not brought about changes substantial enough to necessitate major adjustments in the variety of offerings provided. The great need in the large cities was for expansion of the vocational offerings themselves to meet industry demands for more semi-skilled and skilled workers. To this end, the large cities were adding, or planning to add, trade and industrial programs in the comprehensive high schools. Pierce recognized a need to bring the vocational curriculum in some schools up to present day standards in terms of both equipment and instructional processes.

Summary

Advisory committees have traditionally been considered basic to high quality vocational programs, particularly in trade and industrial areas. Not only do they involve the community in the vocational effort, but they can be of immeasurable assistance in planning, up-dating and evaluating programs, and placing students in employment and apprenticeships. Failure on the part of nine schools to establish advisory committees or use them effectively was the prime debilitating aspect of the trade and industrial programs.

In spite of the less than adequate physical facilities found in Adams and Baker the strongest trade and industrial education programs were found in the small communities. The existence and effective use of advisory committees contributed to the strengths of the outstanding programs visited. This was clearly evident in Clark where advisory committees had been established, and were functioning, in each craft area.

It was in the medium-sized communities that the failure to establish or use advisory committees was most marked. In Kimball the advisory committee met only once a year. The lack of apprentices from among trade and industrial graduates could, in part, be attributed to this practice. In Lewis the lack of advisory committees had a distinct relationship to possible weaknesses in the new or revised courses of study. Nor were there advisory committees in Miller. Their complete absence appeared to have an extremely adverse effect upon the employability of the graduates and the few who entered apprenticeships. It will be recalled that the time allotments were considered inadequate in the medium-sized communities and advisory committees could help strengthen this aspect of the total program.

Pierce appeared to operate on the assumption that a city-wide advisory committee of some type, meeting possibly once a year, would be adequate to maintain the necessary relationships with employers and organized labor. Quinn had craft advisory committees; they were used regularly for the apprenticeship program, but little had been done to promote a closer relationship among the high school program, employers, and labor. In Randall, the use of advisory committees varied considerably. A city-wide general advisory committee had been established and it met regularly once a month. In addition, one of the vocational high schools had a close working relationship with the craft advisory committees which had been established. The effective use of these committees contributed much to the strength of the trade and industrial programs in that school. Pierce and Quinn were planning to extend their trade and industrial programs to the comprehensive high schools without having first established advisory committees to assist in the planning and implementation.

In not taking advantage of community resources by establishing representative advisory committees, communities of all sizes weakened their programs and made the job of the school administration and staff more difficult.

Certain other practices were observed which served to contribute to the quality of the program. Adams had designed a course entitled "Ethical Behavior for Secondary Vocational Students," which was available to all students enrolled in trade and industrial programs. Such a course added an important dimension to the basic education of the students.

In Baker, where the vocational department was located apart from the main high school, the administration took a novel step in order to strengthen the relationship between academic and vocational departments. Several academic teachers from the high school were assigned to the vocational department. The teachers were told that they could return to the main high school if they so requested. No requests were received, indicating the teachers were not unhappy with their new assignments.

The three-week-about-program in Kimball worked out extremely well. This system was used both in shop centered and part-time cooperative programs. It was felt that the students profited from the opportunity to complete large assignments in the shop before having to leave the work.

As was pointed out in the introductory statements at the beginning of this chapter, the image of vocational education in each of the nine communities was obviously closely related to the quality of the product of the trade and industrial programs, because the students in these programs are most typically identified with vocational education. It may be stated that, despite the limitations described, good programs were observed. In no community were the weaknesses insurmountable.

SECTION V: GIRLS' TRADE AND INDUSTRIAL EDUCATION

Trade and industrial education for girls has traditionally meant large enrollments in beauty culture (cosmetology), needle trades, and commercial foods. Practical nursing may be part of the secondary school program, but often it is available to adults only. The dearth of trade and industrial programs for girls has already been referred to. Consequently, the focus of this discussion will be upon the quality of the limited programs.

With one notable exception (Quinn), all trade and industrial programs for girls were offered in schools which also enrolled large numbers of boys in trade and industrial programs. The school in Quinn was a vocational high school for girls.

With the exception of the county vocational school in Lewis, the three communities in the study which had primarily white populations were the only three in which trade and industrial training was not offered to girls, nor were such offerings under serious consideration. Whether this observation has implications for girls' trade and industrial education in particular, and vocational education for girls in general, is open to speculation.

It must be noted that some girls were enrolled in both technical (particularly computer technology) and trade and industrial programs for boys, but their numbers were exceedingly small. By the same token, boys could be expected to enroll in so-called trade and industrial (girls) programs, but here the number was small.

Aims and Objectives

There is no doubt that the aims and objectives of the trade and industrial programs for girls were worthwhile and the extent to which they were carried out was generally good, if not excellent. A summation of strengths (there were no weaknesses) is not included as it is clear that both the administration and the staff knew exactly what they were trying to do and managed to carry out their objectives with a high degree of effectiveness. This does not imply that the aims of such programs were sufficiently broad -- in fact, the programs were severely limited in scope. Table 5.7 shows the limted number of offerings designated as trade and industrial programs for girls.

The purpose of the programs in all communities was to prepare girls for a career in the selected vocational program. The educational objective in Lewis and Randall, in some cases, was to secure a vocational certificate rather than a high school diploma. In order to take care of students of varying abilities and interests, Randall awarded diplomas according to the program chosen -- technical, vocational, and trade. In addition, other programs might lead to a modified diploma or a certificate.

In Lewis, the same course of study in the shop was offered for both a vocational certificate and a high school diploma. The courses were for only two years and a girl entering the school as a freshman could receive a high school diploma in the shop of her choice provided that she transferred to another shop in her junior year, or returned to her local school.

TABLE 5.7

Girls Trade and Industrial Programs
All Communities (1965)

Programs	Small	Medium-Sized	Large	Total
1. Beauty Culture	1	2	6	9
2. Child Care Training			1	1
3. Culinary Arts		1	3	4
4. Drapery and Slipcover			1	1
5. Dressmaking			3	3
6. Fashion Trades			1	1
7. Medical Dental Assistant	1		1	2
8. Power Sewing		2	1	3
9. Practical Nursing	1	0	2	3
Totals	3	5	19	27

It was not possible, for instance, to receive training in power sewing during the entire four years. This practice encouraged dropouts and had an adverse effect upon enrollments.

Baker had recently instituted a dental technician program in response to a growing community need for girls so trained. Since it also offered practical nursing in high school, the community had the nucleus of a cluster of programs in health occupations. The dental technician program was developed with the assistance of an advisory committee and had been well received by students and community.

Beauty culture programs attracted the largest number of applicants, although these included few boys; this was surprising when one considers the large number of men employed in beauty culture fields. In Miller, less than one-fifth of the girls who applied for admission to the beauty culture program could be accepted. Such a selection ratio did not hold true in some of the other programs offered. Power sewing, in particular, appeared to have a stigma attached to it, and the shops could have handled larger numbers of girls. This was particularly evident in the medium-sized communities. Although the ratings by the visiting team indicate that class sizes were small, if not ideal, almost all students who applied for these power sewing programs were admitted.

Except for occasional overcrowding in cosmetology laboratories, all class sizes approached the ideal. Such a rating must be cautiously interpreted, as an apparent strength could in reality prove to be a weakness. It was judged that some of the classes were too small and the shops could have handled more students.

Physical Facilities

In general, the physical facilities were rated good for all schools. It must be kept in mind that this category included not only physical plant but also hardware and equipment. In some cases (Baker and Quinn), the physical plant was old, if not somewhat antiquated. (The girls' vocational technical high school in Quinn had been built in 1884 as an elementary school.) Limited space at this school prohibited any substantial increase in enrollment and the administration refused to endanger the quality of the programs by overcrowding.

Except for rare instances (usually cosmetology), space allotments were more than adequate for the students enrolled. In all cases, the buildings and equipment were well maintained. Equipment was modern, up-to-date, and on a par with industrial standards. The rooms and equipment for home nursing found in Pierce were particularly complete.

Instructional Staff

Without exception, the staffs providing trade and industrial instruction to girls were outstanding. They were not criticized in any respect, regardless of vocational area, type of school, or size of community. Their qualifications -- personality, professional preparation, and practical experience -- far exceeded mere competency and the meeting of certification requirements. For example, the instructor in the dental technician program in Baker was a dentist. The genuine interest of the teachers in their students and the rapport which they had been able to establish indicated true dedication.

An atmosphere of professionalism prevailed in all schools. The instructors spared no effort to provide the girls with thorough skill and related training. This may have been difficult in some instances, as many of the girls had lower than average abilities or aptitudes.

Instructional Program

In some areas, such as in cosmetology and practical nursing, the schools can judge the effectiveness of their instructional program to some extent by the students' performance on the state licensing examinations. The fact that the girls enrolled in cosmetology and practical nursing must pass these certifying examinations naturally has an impact upon student selection. Logically, girls should not have been encouraged to embark on such a program if they did not possess either a record of past achievement or an aptitude to attain certification. Observation of the programs and inspection of the placement data indicate that girls' trade and industrial programs were successful in this respect.

As has been stated, some of the programs in Lewis were in a transitional state, in that both vocational and high school diplomas were being awarded. There was some uncertainty as to which diplomas were awarded and there was some uncertainty as to which educational objectives the students were pursuing and how best they might arrive at their goals. In addition, the cosmetology program in this community was new and follow-up data were consequently not available. In the other five communities which offered cosmetology or practical nursing on the secondary level (or both), there was ample evidence that the courses of study were designed to prepare the students to take the examinations given by the state in these two areas. Apparently, the students were well prepared and performed well in their licensing examinations. In fact, in Quinn the visiting team arrived very soon after the results of the examination in cosmetology had been received. Every girl had passed.

The instructional offerings themselves appeared excellent. They were realistic in that they were geared to the students and appeared to be preparing students with the appropriate skills. In all communities, the standards were high; the one exception being a dressmaking and design offering in one large city. This particular course appeared to be weak in that the students were not producing the high quality of work observed in other schools.

The crowding in some cosmetology shops has been already mentioned. This has always been a popular program and in many respects is more acceptable to parents and students than some of the other trade and industrial courses. Long range projections, referred to earlier, predict a surplus of beauty operators in some communities. Despite this nothing has been done to curtail enrollments. If anything, applications have increased.

The vocational curriculum for girls in Quinn was confined to grades 11 and 12. Students entering grade 10 had a particularly impressive prevocational course. The school in this community had a successful commercial foods program. Students were not prepared for one specific job, but a cluster of occupations in the commercial foods area.

Although trade and industrial courses were not provided to girls in quantity (Table 5.7), there was no doubt as to the high quality of the programs. The extent to which small class size (and the resulting individual instruction) was a contributing factor is impossible to assess. Many of the girls in trade and industrial courses had the benefit of close and sustained personal instruction which was not observed in the other vocational programs.

Guidance, Placement, Follow-Up

The lack of communication and coordination frequently observed between vocational and guidance departments in other programs was not in evidence in the case of girls' trade and industrial programs. There appeared to be a close working relationship between the vocational staff and the counselors. If the instructors thought that their programs were being used as the proverbial "dumping grounds," they did not express such opinions. In no case did a teacher complain that student selection had been poor and that some students could not probably acquire sufficient training to assure employment.

Placement data (see Table 5.8) indicate that there was a high percentage of placement in the occupation trained for (85.2 per cent). Quinn was a case in point. All economic surveys indicated a lessening demand for power machine operators, yet the vocational school continued to offer the program and was able to place a majority of its graduates in the occupation. With respect to the girls' trade and industrial programs there appeared to exist a cooperative effort on the part of guidance and instructional staff both in placement and follow-up activities. Teachers and counselors alike kept in touch with former students. Again, it must be remembered that comparatively few students were involved, permitting close personal relationships which are considerably more difficult to establish and maintain when large numbers of students are involved.

TABLE 5.8

Girls' Trade and Industrial Enrollment and Placement Data for all Communities[a] (1964-65)

		Community Size							
		Small		Medium-Sized		Large		Total	
		n	%	n	%	n	%	n	%
Enrollment	(Grade)								
Girls[b]	9	--		58	2.0	166		224	
	10	--		11	.3	715		736	
	11	33	2.9	29	.8	649	3.5	711	3.0
	12	46	3.8	28	.7	470	2.7	544	2.4
Totals (9-12)		79[c]	2.4	126	.9	2010	3.9	2215	3.2
Placement									
Number of Graduates (1964)		52		33		387		472	
Placed in Occupation or Related		46	88.0	28	84.8	328	85.0	402	85.2
Armed Forces		1	2.0	0		1	.3	2	.4
Higher Education		0		5	15.2	27	7.0	32	6.8
Unavailable or Unrelated		3	6.0	0		7	1.8	10	2.1
Unemployed		0		0		10	2.6	10	2.1
Unaccounted for		2	4.0	0		14	3.6	16	3.4

[a] Source: Data provided by school administration, 1965.

[b] Some boys included with girls.

[c] Some programs new, 1964.

Although these joint efforts were commendable, they were limited to existing courses. One of these (beauty culture) does not require much effort to recruit students. There were numerous applicants and the only guidance responsibility was to notify students when to submit their applications. Guidance appeared to be less than adequate in rising to the challenge of acquainting the students with the less popular programs. While guidance and staff were aware of training possibilities for girls, they were doing little to initiate any expansion of programs which was sorely needed.

Summary

In the section of the evaluative instrument which contained general observations about the trade and industrial programs for girls, the large cities were rated highest. With the exception of the item referring to the availability of education for out-of-school youth and adults, the large cities consistently were rated good or excellent in all respects. The medium-sized cities had the poorest ratings, showing weakness in the breadth of program, proper guidance at course selection time, the effective use of advisory committees, and the use of part-time cooperative programs. Whereas the small and large communities had up-to-date courses of study, this generalization could not be made of the medium-sized communities.

Where trade and industrial courses for girls were offered, the aims and objectives were consistent with those of vocational education. Neither the physical facilities nor staff were rated as less than "good" in any community. Guidance seemed to be more effective for girls than for boys in trade and industrial courses.

It might be concluded that with good equipment, industrial-type facilities, well-trained and extremely dedicated staff, more than adequate guidance, and proven placement experience, trade and industrial courses should have attracted larger numbers of girls in the community in which such programs were available. Yet they did not.

Three communities had no trade and industrial offerings for girls. Home economics courses could help fill this gap if their objectives were vocational in nature, but unfortunately there was no evidence that such was the case. The limited programs available clearly indicated that the schools in the nine communities were very poor sources for employers seeking trained operatives. The programs in health-related occupations were inadequate even before the passage of Medicare legislation (the medium-sized communities offered no programs in this category). Child care training, very important in a society where so many mothers of small children work, was available in only one school in all of the nine communities.

The conclusion then must be that, although the trade and industrial courses may have fulfilled the needs of the girls enrolled, their output had little impact upon the communities as a whole. Nor could they be reasonably expected to have an impact in the future with the limited offerings available.

SECTION VI: OFFICE OCCUPATIONS

Courses in business education, often referred to as office occupations, have long been part of the curriculum in the American secondary schools. Although not officially classified as "vocational education" until the Vocational Education Act of 1963 placed emphasis upon the pre-employment training aspect of the program, there have been, and still are, many people employed in clerical and secretarial positions who received their entire pre-employment training in the secondary schools. In fact, students, parents, counselors, administrators and many business education instructors undoubtedly feel that employment rather than further education is the post-high school goal of the "business majors." It may be speculated that this assumption is both a blessing and a curse to office education. The programs have demonstrated their worth over the years. The general public understands what it is supporting and the courses in which its children are enrolling. At the same time, tradition can frustrate attempts to vitalize the program.

Office education is, by definition,

> ...a vocational education program for office careers through initial, refresher, and up-grading education leading to employability and advancement in office occupations. (American Vocational Association, 1964.)

To continue, office occupations are defined as:

> ...those activities -- performed by individuals in public and/or private enterprises -- which are related to the facilitating function of the office. They include such items as recording and retrieval of data, supervision and coordination of office activities, communication, and reporting of information regardless of the social, economic or governmental organization in which they are found.... (American Vocational Association, 1964).

The latter definition is quite broad and corresponds closely to the census category of "clerical." It is also obvious that this definition includes a hierarchy of jobs which can be filled by people of varying degrees of aptitudes and abilities.

Office education was available in 21 of the 25 schools visited. In most cases at least three tracks were offered -- secretarial, clerical, and bookkeeping. In some schools there was a so-called "general business course" which seemed to fall, from the aspect of courses and proficiency taught, on one side or the other of the clerical major. In a few communities, notably Randall, there was a major designated "Curriculum A" which was specifically designed as a college preparatory program. The students enrolled in this curriculum, as contrasted to "Curriculum B," were considered academic major students since they planned to continue their education beyond high school. They did not have an immediate vocational objective and they have not been included in the enrollment data presented in tabular form.

It must be stated that all enrollments in office occupations (and home economics) must be interpreted with great caution due to reporting procedures adopted by the administrations. How many individual students were taking courses in these departments and how many of this number had a vocational objective could not be determined. It seems reasonable to assume that those graduates classified as "placed in occupation or related" (see Table 5.9) had considered their high school program as pre-employment training. On this basis, the percentages enrolled in office occupations in the small communities could be estimated more accurately -- as approximately 30 per cent of the total enrollment.

TABLE 5.9

Office Occupations Enrollment Data -- All Communities[a] (1964-65)

		Size of communities							
		Small[b]		Medium-Sized[c]		Large[d]		Total	
		n	%	n	%	n	%	n	%
Enrollment	(Grade)								
Boys	9	20		15		--			
	10	319		154		162		635	
	11	111		150		184		445	
	12	57		196		116		369	
Totals	(10-12)	487	13.0	450	8.3	462	3.0	1449	6.0
Girls	9	112		87		--			
	10	768		583		1865		3216	
	11	675		554		2453		3682	
	12	362		500		1681		2543	
Totals	(10-12)	1805	49.3	1637	44.5	6009	58.1	9441	51.0
Total	(10-12)	2292	31.5[e]	5170[e]	30.0[e]	2552[e]	20.0[e]	32,120[e]	22.7[e]
Placement									
Number of Graduates (1964)		404		1635[e]		7628[e]		9790[e]	
Placed in Occupation or Related		260	64.3	438	75.5	1082	64.9	1780	67.2
Armed Forces		7	1.7	23	4.0	26	1.6	56	2.1
Higher Education		48	11.9	45	7.8	109	6.5	202	7.6
Unavailable or Unrelated		27	6.7	37	6.4	110	6.6	174	6.6
Unemployed		0		0		2	.1	2	.1
Unaccounted for		62	15.3	37	6.4	337	20.2	436	16.4

[a] Source: Data provided by school administration.

[b] Data from all (3) schools.

[c] Data from only seven schools visited.

[d] Data from only fifteen schools visited.

[e] Projected data to include vocational enrollment only -- all schools.

3

Aims and Objectives

With the exception of one school in one medium-sized community (Lewis), the aims and objectives of the office education program were solid and well-conceived. In this particular school, it was found that the program was too limited and needed evaluation at the local level in order to become more functional.

Although the aims and objectives of the office education programs were rated either "good" or "excellent" in terms of their traditional roles, two characteristics of effective quality vocational education were generally non-existent. First, there was an almost complete lack of part-time cooperative work experience programs. One school in Lewis did have a cooperative program which was functioning effectively, and some of the schools in Quinn were planning to offer cooperative programs beginning September, 1965. Otherwise, there was no evidence that such innovations were planned or projected. Secondly, little or no use was made of advisory committees in two-thirds of the schools visited.

Physical Facilities

Although some of the school buildings were 30 or 40 years old, most of the office education classrooms were rated good or better. In some instances, they were not adequate to allow for the expanded enrollments, and crowded conditions existed. The hardware, consisting principally of typewriters and office machines, is not costly when compared to shop equipment in some of the other vocational programs, although it is essential that each machine be kept in good running order. In office education, particularly typing courses, the number of machines determines student enrollment, and quick, effective maintenance is imperative. Although in some cases the typewriters appeared to be of old variety, they were at least kept in good working condition. In only two of the large city schools was there any indication that maintenance of equipment posed a problem.

Whether data processing machines should be part of the hardware of the office education department (and whether data processing or key punch operations should be taught at all), is open to question. In one small community (Adams), a quarter of a million dollars worth of equipment for data processing was installed in the vocational department and not in business education. Twenty-five students, all college preparatory, were trained on this equipment and it was noted that none was a business education major. Some of the schools thought that the expense of the hardware necessary to conduct such a program was not justified in the light of employment opportunities available to high school graduates.

Instructional Staff

The instructional staffs in all schools were good, if not excellent, in all respects. They seemed sincerely interested in their students and in their training possibilities. The personal and educational qualifications of the staff were rated extremely high. Almost all the teachers had had practical work experience of some type.

In many of the schools, regardless of community size, the office education department was a large one. Many of the schools had a department head or a coordinator for business education. Each of these individuals was well qualified for the position. Few of these coordinators were employed beyond the ten-months school year. But it will be recalled that there was a general dearth of part-time cooperative programs, and that distributive education (which often is considered as part of office education) has been treated as a separate vocational area in this study. It was believed that if some of the staff were employed on an annual basis the program would be strengthened. For instance, courses of study could be revised on a regular basis. The need for revision was recognized and revisions were planned, but not always carried out.

Instructional Program

With one notable exception (a comprehensive high school in Lewis), the training available to the students through the various tracks in office occupation was of high calibre. In most of the schools, there were three options or tracks: secretarial, clerical, and bookkeeping. In Baker, the school did not consider that it had a sequence of tracks in office occupations, but for all practical purposes one existed. The program in this school was extremely flexible and could be tailored to meet almost all the needs of students. One high school in Randall had at least four tracks to take care of the varying abilities of students being trained for office employment.

Class sizes were generally good, particularly in the small and medium-sized communities. Adams had been able to keep the classes small in such courses as business machines, advanced shorthand, and office practice. The total program in one high school in Lewis was greatly strengthened by the existence of a business department library of some depth.

Two practices in the medium-sized communities deserve mention, as they appeared to be practical attempts to meet student deficiencies. In Miller, there was a coordinated effort to upgrade the spelling of office occupation students. More than the usual amount of time and drill was spent on this aspect of the training. In one school in Lewis, three years of bookkeeping were offered. It was found that the calibre of students taking this track was such that three years were required to complete what would be two years of bookkeeping in an average high school. In this particular school, no bookkeeping was required in the secretarial track and this was thought to be a deficiency.

In most of the schools visited, the instructional program appeared to be very well organized. The staffs were eager and enthusiastic and the students appeared both interested and highly motivated. There was close coordination between the vocational training and the related material, such as English and mathematics. Through the choice of electives, including other business subjects or those from the total curricular offerings, the students majoring in office occupations could build flexibility into their four-year programs and virtually make them to fit their particular needs and interests.

As is clearly illustrated in Table 5.9, the number of girls enrolled in office occupations exceeded the number of boys. This disparity was most evident in the large cities and much less marked in the medium-sized cities. Not all schools offering office occupations were included in the survey so no attempt was made to compute enrollment percentages although a "fair estimate" was reached.

Placement data concerning the graduates of business education revealed that the graduates of the business program were comparable to other vocational graduates in the following categories: placed in occupation or related, entered higher education, unavailable or in an unrelated job, and unemployed. One would not expect to find that large numbers had been attracted to the Armed Forces, since the enrollment consisted predominantly of girls.

The substantial proportions of students unaccounted for in the small and large communities give cause for alarm. As has been observed, the follow-up responsibility was not clearly placed in all schools, with the result that the schools simply did not know what the graduates were doing.

Guidance, Placement, Follow-Up

In most of the schools visited in all nine communities, guidance, placement, and follow-up were considered separate items. When the business education staffs were discussing the guidance function, emphasis appeared to be upon the counseling aspect of guidance and the extent to which students were informed about the offerings of the business department and were guided at course selection time.

It was found in all but one school that an effective counseling program had been developed to inform students concerning program offerings. Good informational material had been prepared and was disseminated. In contrast to practices observed in other vocational areas, entrance standards had been devised for the various business tracks and their standards were based on sound criteria and varied with the program selected.

There was evidence of a closer relationship between office occupations and guidance than in some of the other vocational areas. It may be speculated that three factors were operating to bring about this greater cooperation and general understanding. First, business education has long been part of the secondary school curriculum and has undergone few changes over the years. Second, many counselors may have had work experience themselves (on a full or part-time basis) in sales or office occupations, enabling them to profit from first-hand knowledge of job requirements. If they do not have personal work experience of this nature, many of them have been exposed to office work through contacts with their immediate family and friends. Third, business education has long been considered an acceptable major, particularly for girls, and counselors are not required to provide detailed occupational information for these programs. Course selection and understanding of the various tracks can, to some extent, be handled by the business education teacher in such introductory courses as Typing I or general business, which are usually common electives in the ninth grade.

In most of the schools, placement and follow-up of graduates were being handled by the head of the business department who established and maintained contacts both with employers and the local employment service. In over half of the schools, the items referring to this function were marked "does not apply" to guidance. The assumption appeared to be that placement and follow-up responsibility should be assumed by the business department head. Whether a follow-up study as conducted by the business department would elicit the same information as that conducted by the guidance department with the same students is open to question.

In Miller, there was no difficulty with placement as this was handled by the business department. In spite of the fact that 50 per cent of the graduates were non-white, placement was no problem at the time of the study. There was, however, a serious deficiency in the matter of follow-up. There was no follow-up of graduates by anyone at the time of the study. This condition existed to some extent at a school in Lewis. The counseling staff was so overworked and spent so much of its time in individual counseling that it was not a practice to follow students after graduation other than on a sampling basis. This lack of organized follow-up procedures was considered a definite weakness where it occurred. It was surprising that such a situation existed, inasmuch as follow-up of graduates is mandatory in the states and a report must be sent to the State Board of Education in January of the year following graduation with an account of the post-high school situation of each graduate.

Socio-Economic Changes

Although there had been significant socio-economic changes in the communities, there was little evidence of a need for new direction in the office occupations program. It will be recalled, from the discussion on employment distribution, that about one-third of the women employed were in clerical or sales occupations. There appeared to be a continuous, sustained demand for trained office personnel in all of the communities. The demand for graduates with such training had actually increased in Miller, which was the state capital.

The entire area of business data processing, together with the part which the secondary schools should play in providing skill training in this field, was under consideration in all of the communities at the time of this study. Of the fact that employment opportunities existed, and would continue to exist, there was no doubt. Concern was expressed that employers would be reluctant to hire graduates of high school programs. In addition, the equipment is expensive either on a purchase or rental basis. The feeling in Baker was shared by many of the other communities, namely, that there was need for training in data processing for at least a limited number of students.

Quinn was planning to add programs in data processing to the office occupations program in three high schools in the 1965-66 school year. This was to be preceded by a full semester of introduction to theories of data processing in 13 of the city schools. To prepare the teaching staff for this new subject area, each teacher was to be paid $55 a week to take data processing training in the summer, with the Board of Education paying the tuition expense. In Randall, the theory of key punch operation was taught on a related basis in the office practice courses. It appeared that, at present, the basic principles of key punch operation were taught on a related basis in the office practice courses. It was thought that a grasp of the fundamentals of key punch was all that was necessary in that particular city. Generally speaking, it was observed that the lack of any introduction to key punch or data processing served to lower the over-all quality of the office occupation program.

The population of the inner city in Lewis was made up of a lower income group than it had been previous to the exodus to suburban towns. Courses have been adjusted to service this new type of student. Every effort was being made to change the program to meet the changing abilities and needs of the students enrolled. It may be speculated that the characteristics of the student population will tend to change in this same direction in the three large cities, and that there will be a greater need for the flexibility which was observed in the programs as they existed.

Summary

In all communities, the office occupations programs, as they were being conducted at the time of the study, were rated "good" or "excellent." The advisory committees in Adams and Kimball were particularly effective. Their membership was representative of the business community, they met both formally and informally on a continuous basis, and contributed immeasurably to the strength of the programs. The general lack of advisory committees in other communities has been previously mentioned. With the contemplated expansion to cooperative programs, the lack of advisory committees would have a detrimental effect upon this aspect of the total program.

There was little wrong with the office occupations programs that additional financial support could not cure. More classroom space was needed, particularly for typing, and newer machines required. This referred not only to replacement of old typewriters, but the addition of transcribing and other new office machines.

One of the major strengths in the office occupations programs was their flexibility. Students with a wide range of ability and interests were enabled to participate successfully and receive skill training of a vocational type. The schools were providing a vital service to the entire community in this respect. The efforts that were being made in Randall in one of the lower ability groups deserve comment. Special attention was being given to make the students employable, in a personal way. Therefore, emphasis was placed upon teaching students how to get along with people, how to dress properly for work, and, in addition, how to express themselves orally so that their capacity for employment would be enhanced.

There was no evidence that the business education departments had taken steps to coordinate their efforts with those of the other vocational departments. It appears obvious that the coordination of business with home economics, agriculture, trade and industrial, and technical education is a subject which merits attention and serious study.

SECTION VII. HOME ECONOMICS

Home economics and agricultural education were the forerunners of vocational education in the secondary schools. Both programs have long benefited from Federal support. Although, as has been previously discussed, vocational agriculture offerings were found in only three communities, home economics education was available in all of the nine communities visited. Seventeen of the 25 schools involved in this study had home economics offerings. (It must be remembered that two of these schools were for boys only.) Although specific courses had been added or deleted over the years, home economics had been part of the total school program for a long period of time.

According to the accepted definition, home economics education is:

> ... a program of instruction which is planned for the purpose of assisting youth and adults to understand and solve problems in home and family living and/or to prepare for employment and upgrading in occupations involving knowledge and skills in home economics subjects. Subject-matter areas include: child development; family relationships; food and nutrition; clothing and textiles; family economics and home management; housing, home furnishings and equipment; and, family health. (American Vocational Association, 1964).

This is an extremely broad definition inasmuch as it covers the preparation of girls and boys for both home making and related employment opportunities. Programs designated as "general home economics" are also included within the scope of this definition. This study, however, was particularly interested in home economics as a basis for employment and limited to the offerings at the senior high school level.

There was great variation from school to school and community to community in the course titles themselves and the number of periods per week allotted to the individual home economics courses. Some classes met two periods per week whereas many others met for a double period each day. Course titles most frequently encountered were food and nutrition, clothing, homemaking (home arts), and family living. One high school in a small community (Baker) which had more than 1,600 girls in the student body offered one course in home economics. In some of the other high schools, particularly in large cities, the offerings were quite extensive and it was possible for a girl (or boy) to pursue home economics as a major. In general, the fact that it was possible to elect home economics as a major (usually a four-year sequence) distinguished the "vocational" from the "general" type.

Most of the girls enrolled in the home economics courses did not plan to continue their education beyond high school. Many were pursuing the general and not the vocational offering. Some girls from the business or academic curriculum did elect one or two home economics courses during their high school careers, but their numbers were few. In some instances girls who planned to prepare for careers in nursing were encouraged to take home economics, particularly those courses emphasizing food and nutrition. Far too many of the students, however, were low achievers with little in the way of educational or vocational goals.

Aims and Objectives

In most communities it appeared that the over-all aim of the home economics program was to develop some skill in clothing construction and food preparation and to provide some knowledge of other techniques and skills for personal and family living. With the exception of the extremely limited offering found in Baker, the programs were sufficiently extensive and intensive so as to make it possible for some of the students to qualify for jobs after graduation, but far too often this aspect was not emphasized.

Although the majors designated as "technical" in Quinn were not the same as trade courses, they were career-oriented. Girls could specialize in clothing, foods, or general home economics during grades 11 and 12 and many girls later found jobs in related fields. It may be stated that in the other schools the home economics program was job-oriented to some degree, although there was considerable variation from school to school. Skills acquired could, and did, help individuals to choose a vocation. However, pre-employment training was not one of the stated aims of the program. In some of the schools, particularly in Miller, the instructors thought that increased emphasis on career preparation was needed.

There was an indication of a lack of understanding on the part of some administrators of the place of home economics in the total high school program. One of the difficulties appeared to be in the administrative structure. There were instances of an apparent lack of coordination in home economics offerings between junior and senior high school. As a result the offerings in the senior, as well as the junior, high schools were of the survey type. Thus, the high school program was unnecessarily restrictive. There was, in most cases, a poor relationship between home economics and guidance staffs. That the home economics offerings were not so strong as they had been in the past in Adams was blamed by the staff on the fact that guidance counselors were not encouraging girls and boys to enroll in home economics.

Physical Facilities

The best physical facilities were found in the small and medium-sized communities. The existence of ample storage space in most of the schools was particularly worth noting. This was not generally found to be a strength in the large cities, particularly Quinn and Randall. In one case the students had to store work in process in shoe boxes which they had brought from home.

Most of the schools had ample work space for both foods and clothing courses. There were insufficient sewing machines for the size of the classes in the communities of Kimball and Randall. On the other hand, the communities of Clark and Miller had a sewing machine available for each girl. Most of the schools had a dining room or an all-purpose room which could be used for instruction and general entertaining. It was thought that the omission of living and dining room facilities was unfortunate in the new physical plant in Clark. One school in Quinn had no dining room for the practical application of its foods classes.

Audiovisual aids were available for use. Reference materials in all communities were available and up-to-date. However, there was some question as to whether the reference material was geared to the reading level of many of the students. If not, its availability would be a questionable asset.

Instructional Staff

The instructional staff in large communities was found to be good to excellent in all respects. Many teachers had had practical experience and were alert to the mechanical, technological, and socio-economic factors affecting their program. Their stated desire, to give greater emphasis to career preparation, indicates that they were aware of the changing occupational pattern of American women. In the small communities, and in most of the large city schools, the staffs showed genuine interest in their students and the classes appeared to be well-motivated and doing good work.

In three communities (Lewis, Miller, and Pierce), the dynamic enthusiasm most often encountered elsewhere was lacking. In one of these communities the morale was extremely low among the teachers. It was observed, even in the case of schools with better teachers, that much needed to be done to vitalize the program. By and large there was a general feeling of frustration. Part of this low morale could be attributed to the lack of administrative support and the calibre of students "assigned" to home economics courses by counselors.

Instructional Program

As has been mentioned in the section on aims and objectives, the home economics courses and programs varied widely in what they were attempting to do. All of the instructional programs in the large cities were rated good. The programs in the small communities were given an over-all rating of good with the exception of Adams where the instructional program was rated as outstanding. Two of the schools in the medium-sized communities (Lewis and Miller) could only be considered fair.

There were two weaknesses found in more than half of the schools visited. The first was the inadequate amount of time given to the home economics courses. Sufficient time was not always given to the practical skill training to insure proficiency. It will be remembered that some of the classes met only two days a week, and that many others met five days a week, whereas the program would have been considerably strengthened had a double period been allowed. Secondly, in most schools there was no chapter of the Future Homemakers of America or home economics club. It had not been recognized that these clubs give impetus to home economics programs and provide an opportunity for students to explore some areas in greater depth. Two schools in Lewis were an exception. One had a Future Homemakers chapter and the other had an active Chef's Club.

Certain schools showed strengths which would appear easily transferable to other systems. One was the nursing nutrition course offered in Miller for girls planning to study nursing as a career. Miller also inititated two classes planned especially for the mentally retarded. The students in these classes were doing very simple work but were being prepared to meet the tasks of every day living. Both of these classes appeared to be extremely successful. The enrollment in home economics classes in Quinn was high in both schools visited. The number of students electing these classes is some indication of the way the program was meeting the needs of these students. It should be possible for many of the girls enrolled to develop sufficient skill so that they could succeed in jobs related to the food and clothing fields. The child-care training course in one school in Randall also made a fine contribution in this respect.

Consideration should be given to encourage boys to elect courses in home economics. Although some alterations might be needed in the structure of the courses, this should not prove difficult.

Although the home economics programs were generally found to be good, but limited, the main criticism of most of the offerings was that so many areas were covered each year that the pursuit of any one area in depth was not possible (see Table 5.10).

TABLE 5.10

Home Economics Enrollment Data -- All Communities[a] (1964-65)

		Size of communities							
		Small[b]		Medium-Sized[c]		Large[d]		Total	
		n	%	n	%	n	%	n	%
Enrollment	(Grade)								
Girls	9	3		--		179		182	
	10	133		237		700		1,020	
	11	70		146		684		900	
	12	153		106		500		759	
Totals (10-12)[b]		356	10[e]	489	10-13[e]	1,884	15-17[e]	2,679	10-14[e]

[a] Source: Data provided by school administration.

[b] Data for all (3) schools visited.

[c] Data from only seven schools visited.

[d] Data from only fifteen schools visited.

[e] Projected data -- vocational enrollment only -- all schools.

Guidance, Placement, Follow-Up

The impression most often received was that the teaching and guidance staffs did not concur on the manner in which students were to be enrolled in home economics. In almost all schools, responsibility for election of subjects was in the hands of the guidance department and they did not always make students aware of home economics offerings. (This did not hold true in Quinn where the relationship seemed to be founded on understanding and mutual cooperation.) The guidance staff, particularly in the comprehensive high schools, must have a thorough understanding of the value of the home economics program and recognize that all girls (and many boys) can benefit so that the classes do not become a convenient place for non-achievers. In many of the schools, unfortunately, the instructors complained they were not receiving a cross section of the student body and that many of their students were academic failures or had serious problems of adjustment.

There apparently was little effort on the part of counselors or teachers to coordinate their activities and define their individual roles. There was little informational material available to parents and students about the home economics program.

Socio-Economic Changes

With the exception of Quinn, where the teaching staff appeared to keep up with changes taking place in the community and attempted to adjust their programs to the changes, there was little evidence that the communities recognized the role which home economics education could play in preparing students for employment. In most communities, shortages existed and would continue to exist in service areas (e.g., maids, waitresses, kitchen workers, nurses' aides, etc.) where training in home economics could help prepare students for these types of jobs. In Clark, where the rate of employment had continued to rise since 1940, there was still a shortage of practical nurses. In spite of this known shortage, the Board of Education turned down the request of the school to initiate a course in practical nursing.

It has been pointed out that the communities visited reflected the national trend of increasing percentages of women being employed outside the home. It would seem advisable to consider home economics as a pre-training opportunity to equip students for potential careers in food services, institutional and motel housekeeping, nursery and child care, etc. Using existing facilities, training programs, such as those suggested by the U. S. Department of Health, Education, and Welfare, might fulfill a real need in the community. Unfortunately, either the administrations had adopted a "head in the sand" approach to the problems of women who seek employment and employers seeking workers, or they did not see the possibilities of the home economics program for the training of women workers.

In all communities, many girls were leaving school with no job skills and no plans for further education. Many of these girls had been classified as "general" students and had pursued what might be called a major in home economics. Although their stated post-high school objective might be marriage, there is no doubt that a large number of these girls would seek employment and would spend at least 30 years working. In the medium-sized and large communities, particularly, many of these girls were from the lower socio-economic group and were the very students who found it most difficult to secure employment. The schools have a responsibility to these girls as well as to those who seek training in the more skilled occupations. It would appear that there is a definite need for changes in the structure of the home economics program. If the calibre of the students electing the courses has changed, it would appear that the programs themselves should change. Although many of the instructors were aware that their programs were not geared to the interests and abilities of the students enrolled, there was very little indication of serious consideration being given to restructuring the home economics program.

Summary

Home economics programs, as they were being conducted, were rated from "fair" to "excellent" with most of the programs falling into the "fair to good" category. The excellence of the program in Adams was due in part to the inspired leadership of the head of the department who had kindergarten-to-twelfth grade coordinating responsibilities. Because of this administrative structure, the curriculum efforts at each educational level were very well integrated. In Quinn the large number of students enrolled in home economics courses gave some indication of the substantial contribution that the department was making to the students in the city. In other communities, there was a potential for an excellent program. This potential was not realized because of a lack of scope or depth and, in some cases, the lack of both.

In some communities, home economics was suggested as an elective to pre-nursing students. Although this was a sound practice from the educational and pre-vocational point of view, in most cases these students were not separated from the other students enrolled (many of whom were very low achievers). In one class in Miller, in fact, the students were so poorly prepared academically that the teacher had to read to her class. They were not able to absorb the material on their own. As though this were not bad enough, one teacher at a school in Lewis said instructions had been given to the home economics department not to fail any students. This created a very difficult educational situation for both students and staff and contributed to the lack of understanding between the home economics and the guidance departments.

Since pupil reporting procedures did not separate home economics majors from those students merely taking one course as an elective, the enrollment data presented in Table 5.10 must be interpreted with caution. It was not possible to ascertain what percentage of the students was enrolled in home economics or to isolate those who may have had a vocational goal.

The instructional staffs were generally excellent. Many of the instructors realized the part which home economics could play in the pre-employment training of many students. The fact that the programs were not geared to pre-employment training cannot be attributed to them. Many were frustrated because they were not doing all that they realized could or should be done. Since many of the physical facilities were adequate (some were outstanding), it is suggested that the home economics offerings in many communities could be restructured without incurring a large expense. It is a question of reorienting the school program and schedule. The means existed to meet the needs of both the students and the community. Most of the staff was eager to do its part and to have greater emphasis on career preparation.

SECTION VIII: THE ACADEMIC SUBJECTS IN RELATION TO VOCATIONAL EDUCATION

One member of the visiting team was charged with the responsibility to look at the over-all program of academic instruction in the comprehensive and vocational schools in several communities. Special emphasis was placed upon those courses which were taken by all students and often are designated as "academic courses." These included such subjects as English, social studies, mathematics, and science.

The academic classes in one medium-sized community (Miller) and two large cities (Pierce and Quinn) were visited. This section is concerned with seven schools in these three communities. Thus, attention was given to the "academic courses" in two different institutional settings. Three of the schools were comprehensive and four were separate vocational-technical high schools.

Aims and Objectives

The aims and objectives of the academic courses provided for vocational students appeared to be divided into two categories, each treated somewhat differently and consisting of:

1) Related courses, such as mathematics and science; and

2) English, history, and a civics, or government, course (usually called POD -- Problems of Democracy).

The related subject courses aimed at correlating mathematics and science with the shop or laboratory aspects of the curriculum. That is to say, the mathematics taught to the machine shop student was very different from the mathematics taught to the auto mechanics student. The exact difference was based on an analysis of what was needed to be able to perform successfully either as a machinist or an auto mechanic. As can be expected, this difference is substantial. The machinist student was therefore exposed to considerable algebra, trigonometry, and some geometry, while the auto mechanic student received mainly advanced arithmetic and some applied algebra.

The courses of English, history and government were usually required of all students for graduation. These were taught independently of the occupational goal of the student and were subject-matter oriented. They served as a part of the general education of the individual as did the subjects of physical education and health, which are required throughout four years of high school in most states.

It should be noted that the related subjects (mathematics and science) may be taught within the shop or laboratory period by the shop or laboratory teacher or may be taught outside of this block of time by a special related-subject teacher or by a purely academic teacher. These patterns have been commonly referred to as Types B (same teacher) or A (different teacher) programs. A more detailed discussion of these program types appears below in the section on "Instructional Program."

Physical Facilities

The physical facilities in which such instruction was carried on varied from the very new to the very old. The class size was exemplary in that there were ample accommodations for small (usually 15-20) numbers of students, especially for the related subjects. Most of the classroom facilities received over-all ratings of "good." In the newer construction, it was noted that the related classrooms joined the shop facilities, sometimes separated only by a glass partition. This close proximity conveyed a notion of correlation between the subject matter taught in the two environments.

Instructional Staff

Irrespective of the type of school, the teachers of both related and academic subjects received "good" ratings on items which referred to their personal qualifications and educational preparation. Although the teachers of the academic subjects were interested in their students, they had made little conscious effort to understand the vocational programs to which these same students were committed and did not make it a practice to visit the vocational areas and learn about the work being performed by their students. This lack of understanding probably affects their attitudes toward vocational education, a point discussed in detail in Chapter 7.

It can be assumed, although it was not entirely observed, that those shop and laboratory teachers who have to teach the related subjects (Type B programs) have an excellent opportunity to correlate the two areas of instruction. They should know "first hand" what must be taught in the way of theory so that this theory can be related to the skills of the trade their students are learning. However, the question arises as to how well prepared these individuals are in theory. Do they possess the mathematics and science background necessary to carry forth the instruction in depth? No definite conclusions were reached on these points.

Instructional Program

In all schools, instruction in mathematics and science for the vocational students was job-related. In the community of Miller, the mathematics and science content was handled by the shop teachers under a Type B program. The other schools studied had Type A programs in which a teacher, other than the shop or laboratory instructor, taught the related subjects.

In some instances (such as in the community of Quinn), it was possible for the more academically talented students to elect the college preparatory mathematics and science courses if they desired. There was, however, in most communities some question whether those students who wished to go on to post-high school education, particularly in the technical field, would have had an adequate background in mathematics and science to pursue this post-secondary work. The teachers in the community of Miller, when this question was raised, were inclined to believe that it would be necessary to have further instruction in the principles and basic structure of these important subjects if their graduates wanted to go on to college.

The close relationship which was found between mathematics, science, and the vocational skill training of the students was not found in the areas of English and social studies. English and social studies were regarded as academic or general subjects and required of all students. Each of the communities followed the policy of grouping students by ability in these subject areas. Although the number of ability groups varied from three to five, in all cases students were assigned to classes on the basis of ability and past performance. Any differences in grouping were based on ability level rather than on vocational choice. In the comprehensive high schools, although some vocational students were found in the groups consisting of students with high ability, the vast majority was found in the courses for those of lower ability. The consensus among the administrators and academic teachers was that vocational students are going to be citizens as well as workers, and that the social studies and English are necessary for all students.

There was no evidence that the English and social studies faculties attempted to coordinate their areas with the vocational training. Actually there was little communication between the vocational and academic teachers, even in the vocational schools -- which was unfortunate in that some efforts to relate the academic subjects to the occupational goals may have helped motivate learning in the academic areas and improved the attitude of these teachers toward vocational education.

All things considered, it was found that the academic program was good. Although it is often said that students merely suffer through or endure the academic part of their curriculum in order to get back to the vocational shops, no evidence was found to support this. Rather, students appeared to respond to good teaching or an attractive teaching personality, regardless of the subject matter area. Neither was there any evidence to support the often repeated contention that the academic courses are "watered down" for vocational students. On the contrary, contents of the courses appeared about the same as in the academic curricula. The only observed difference was slightly lighter homework assignments.

In the large cities, particularly, the academic teachers appeared to have a good grasp of the educational and social problems of their students and were making some serious attempts to deal with those problems. Although there were very few attempts to experiment with some of the recent curriculum innovations, some excellent practices were observed. In one school, where most of the students came from non-reading homes, there was a definite effort to have a substantial amount of reading and discussion of written material. In another school, it had been noticed over the years that students entering in the tenth grade were generally one and a half years below grade level in reading achievement. Therefore, special attention was given in the tenth grade to improve the reading ability of these students. In some schools there was particular emphasis on verbal ability since many of the students showed great weakness in this area.

Summary

There was no evidence that the vocational students were slighted when it came to their academic or related education courses. The mathematics and science courses appeared to be well presented and in most cases students who desired more rigorous subject matter content in these areas were free to elect such courses.

It was found that in all the communities the experiences of students in English and social studies, as part of the general education offerings of the total school, was good. Ability grouping was determined by intellectual ability and past performance rather than by vocational choice. The students were assigned to the ability level in which it was felt they could perform most successfully. Thus, the vocational students were not segregated because they were vocational students.

More sensitivity on the part of some of the academic teachers (English and social studies) to the problem of the lower level student would be desirable. A "feel" for the problem could be achieved if these teachers were to visit and observe work in the shops and laboratories in which the students spend a large share of their time. The understanding of the teachers, and their attitudes, might change.

SECTION IX: SUMMARY

An assessment of the individual progress was made by an expert in each of the following areas: vocational agriculture, distributive education, technical education, trade and industrial education (boys and girls), home economics, office occupations, and related academic subjects.

Vocational Agriculture

Only three communities offered vocational agriculture. The inadequacy of this program, indicated by the fact that six of the communities in the study did not even consider it desirable to offer the program, points to the need for its further study. Agriculture extends beyond the boundaries of rural or farm life and includes, among other things, marketing of farm produce, floriculture, horticulture, and landscaping.

The programs that came under examination in this study were generally rated as good. They were related to community needs and were up-to-date. There was good communication among tradesmen, teachers, and former students. There was some feeling that facilities and equipment could stand general improvement and up-dating. It was pointed out that much more consideration could be given to providing agricultural training not only for the very slow student but also for the above average student who wanted to continue with an advanced curriculum at the technical level. Consideration of a range of agricultural education for all students was definitely suggested for future planning.

Distributive Education

Distributive education enrollment accounted for less than one per cent of the student population in the communities studied. Although in several of the communities distributive education had been a part of the total school offerings for a number of years, it had not flourished.

Most of the programs observed were providing sound training for the students enrolled. The lack of functioning advisory committees and the poorly organized follow-up of graduates were singled out as weaknesses. In light of the nature of the distributive education offering it would seem, from the cooperative orientation of the offering, that coordinators not only would display a keen interest in the "after graduation" success of their students, but also would attempt to follow their careers. Generally, this was not found to be the case and former graduates did not serve as the nucleus for more advanced offerings on the adult education level.

Technical Education

Less than one-half of one per cent of the high school students were enrolled in technical programs. Those few programs in operation (thirteen were reported) were judged to be good or excellent in all elements. Nevertheless, it was observed that advisory committees were not utilized to the maximum extent possible, and the notion that cooperative-type education could play a role in the programs appeared to be lacking.

All too often, the guidance effort, related to student selection and eventual follow-up, was judged highly inadequate. There did not seem to be enough known about the success or failure of the students who completed the secondary school technical program. Many students, especially from one community, went onto post-secondary programs. While this was considered a strength, technical education, even after being pursued for three years in the high school, appeared to produce few tangible results for its graduates, unless they went on to post-secondary education.

Trade and Industrial Education (Boys)

The programs in trade and industrial education (boys) accounted for the second largest enrollment. Approximately ten per cent of the ninth through twelfth grade boys were pursuing these programs. The large communities offered 73 courses in 30 different programs. The breadth of offerings ranged from such less skilled courses, such as shoe repair and painting, to those of a highly skilled nature, such as architectural drafting, electronics, and optical mechanics.

The weakness most often observed was the lack of functioning advisory committees. Even more alarming, in at least two communities where new programs were being planned for the comprehensive high schools no thought was being given to the use of such committees.

Teacher competency was judged highly satisfactory although it was thought that teachers should be employed beyond the regular school term to develop instructional materials and to pursue general self-improvement. Teachers employed on eleven- or twelve-month contracts appeared to be better prepared in terms of their over-all abilities to teach.

The hardware and the physical structures were judged adequate to carry out the programs in trade and industrial education. Guidance and follow-up of students were judged to be weak, mainly due to a lack of adequate personnel to carry out these important functions. And little change in the programs being offered was noted which could be attributed to socio-economic trends. The limited extent of the offerings was recognized when compared with the shortage of skilled manpower observed in many occupational areas.

Trade and Industrial Education (Girls)

The popular offerings for girls were cosmetology (beauty culture), needle trades, and commercial foods. A small enrollment of slightly over three per cent was noted. It was observed that some girls were enrolled in both technical (particularly computer programming) and trade and industrial programs usually offered boys, but their numbers were exceedingly small. By the same token, boys could be expected to enroll in so-called T and I girls' programs, but they too were few in number.

Although the aims and objectives of the programs were well thought out and implemented, it was observed that they were narrowly conceived and lacked imagination as to the breadth of occupations in which women are currently employed. At best, only nine different programs could be reported. Industrial staffs provided for the girls' curricula were rated as outstanding in terms of personality, professional preparation, and practical experience -- far exceeding certification requirements.

Contrary to normal findings, the guidance and follow-up function for the girls' programs were exceedingly well carried out. If the teachers thought that their curricula were being used as the proverbial "dumping ground," they did not express such opinions. Teachers and counselors alike kept in touch with former students. Possibly this strength could be attributed to the small enrollments or the narrowness in the breadth of the offerings.

It might be concluded that with good equipment, industrial-type facilities, well-trained and extremely dedicated staff, more than adequate guidance, and proven placement experience, trade and industrial programs should attract large numbers of girls. Yet they did not. The question is: Why not?

Office Occupations

The large number of students electing individual courses that make up the total business education program compounded the problem of clear identification of enrollment. It is, therefore, estimated that approximately 22 per cent of the secondary school student population was enrolled in the program with an occupational objective. This is, by far, the largest percentage enrollment of any of the vocational areas included in the study. Moreover, a sizable number of both boys and girls is included in this estimate.

An outstanding feature of the business education program rests in its structure which is designed to meet the interest and level of varying student abilities. This multi-track approach provides great flexibility. Courses can be combined to make a program tailored to meet many needs of the students.

Class sizes were generally good and the offerings seemed well organized. Instructional staffs were judged good, if not excellent, in all respects. Many of the schools visited had a department head or a coordinator. The physical facilities were assessed as adequate, but not outstanding. The equipment being used for training purposes was not, in all cases, the most up-to-date and there was some feeling that it could be improved.

The substantial number of graduates from these programs who were unaccounted for at the time of follow-ups caused some concern. The follow-up responsibility apparently is not clear in the minds of either teachers or department heads with the result that many simply do not know what the graduates are doing. There was some concern expressed relative to the lack of functioning advisory committees. With the expansion of cooperative programs of office occupations, to ignore the contributions that could be made by active advisory committees is inexcusable. Moreover, it was observed that a great deal of effort must be made to coordinate many aspects of business education with other vocational offerings such as agri-business.

Home Economics

It was exceedingly difficult to make a clear distinction between general and vocational home economics. At best, it was estimated that less than 15 per cent of girls were enrolled in home economics at the senior high school level. Most girls enrolled in the home economics program did not plan to continue their education beyond high school. In a few cases, girls who planned to prepare for a career in nursing were encouraged to take home economics, particularly those courses which emphasized food and nutrition. Far too many of the students were low achievers with limited educational or vocational goals. The aims and objectives of the program clearly reflected a lack of effort devoted to providing occupational training for girls as part of the home economics education. Neither the staffs nor the physical facilities displayed were oriented to employment goals. At the same time there was a sensitivity expressed by many of the teachers to the need for change.

The programs being offered were judged, aside from being highly traditional, to be good. There was a tendency not to provide enough time in the various courses. Moreover, the valuable adjunct of the Future Homemakers of America organization was frequently found lacking. Little, if any, thought appeared to be given to include boys in home economics even in nutrition courses which could have been of benefit to them.

Guidance, placement, and follow-up for the home economics students were not satisfactory. It may be fairly stated that the relationships in general between the home economics and guidance departments were far from conducive to casting the best image for the program.

Related Academic Subjects

The academic subjects (both related and general) were found to be of equal quality throughout the study. Class size was generally small (15 to 20) and cited as a definite strength. The instructional staff appeared to be competent in their subject fields although some question could be raised as to the sensitivity on the part of some academic teachers relative to the occupational goals of their students. It was observed that those shop and laboratory teachers who have to perform the dual role of teaching the related subjects as well as the manipulative skills have an excellent opportunity to correlate the two areas of instruction. Some concern was shown, however, for the adequacy of preparation of these teachers in the related subject matter which they were required to teach. Whether or not they possessed the mathematics and science background, necessary to carry forth the instruction in depth, appeared to be a question requiring further study.

SECTION X: CONCLUSIONS*

The following conclusions have been reached relative to the evaluation of vocational education based on the observations of the visiting team:

1. The vocational programs found in the small communities appeared stronger than those in either the medium-sized or large communities. This was especially true with respect to extent of penetration, administration, advisory committees, and instructional program.

2. General weaknesses of the vocational programs were seated in an administrative structure which could not exercise a viable role in making top-level policy. Those responsible for vocational education were just not high enough in the school administration hierarchy to have a strong voice in what was to be offered occupationally and how it was to be implemented.

3. Guidance was a weak link in the entire process of vocational counseling, placement, and follow-up.

4. Advisory committees were not being utilized effectively. Nor, for that matter, were the total community resources that could be focused on the problem of providing education for the world of work being effectively utilized.

5. The image of vocational education (as reflected by the trade and industrial area alone) was poor. (This is discussed further in Chapter 7.)

6. The instructional staffs were generally good as were the instructional programs, physical facilities, and hardware.

7. The academic (including related mathematics and science) subjects were taught well and the vocational student, in light of his occupational goal, was not "short changed" in these areas. The teachers of these subjects, however, had an inadequate knowledge of what went on in the shops. This affected their attitudes toward vocational education.

8. Class size was generally limited to adequate numbers of students who could be accommodated for effective learning.

9. The program areas of agriculture, distributive education, technical education, trade and industrial (boys and girls), home economics, and office occupations each made a concrete contribution to the total program of vocational education. Failure was apparent when any of the areas were lacking from the total offering of a school's program.

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*Conclusions of Chapters 4 and 5.

10. Vocational offerings for girls were limited. The contribution of women to the skilled work force has not been fully recognized by those in charge of secondary school vocational offerings.

11. What can be said about the meagerness of vocational offerings for girls can be repeated for technical education as part of the secondary school curriculums. The effort was not substantial in this direction.

12. Vocational agriculture had not as yet been looked upon as a field much more inclusive than preparing for farming. Programs for floriculture, horticulture, landscaping and design, let alone agri-business and other occupational mixes, had not been envisioned as part of the secondary vocational school offerings.

13. Office occupations boasted the largest enrollment of any of the vocational offerings. With added impetus, office occupations can play an increasingly important role in meeting the occupational needs of boys and girls.

14. Home economics finds itself confronted with the dual role of making better homemakers as well as bread-winners. Although sensitive to this challenge, neither the local leadership nor teachers had fully recognized the potential role of home economics in preparing girls for the world of work.

15. Trade and industrial education has ignored, substantially, the development of programs for the less skilled occupations and frequently has weakened those programs which claim to produce advanced learners in the traditional, high-skill fields. The result has been confusion in the eyes of the employers which has cast a poor image for vocational-technical education in general.

16. Vocational education has not developed appropriate programs to meet the needs of those who do not have the ability, aptitude, or interest in the academic or vocational curriculum. Very few imaginative or creative programs were found for this group.

PART III - EMPLOYMENT EXPERIENCES AND ATTITUDES OF HIGH SCHOOL GRADUATES

CHAPTER 6

THE ADEQUACY OF VOCATIONAL EDUCATION IN PREPARATION OF YOUTH FOR EMPLOYMENT

A clear understanding of the relationship between input and output is essential to the efficient operation of any system, whether it is political, commercial, or educational. While "education is a source of versatility and adaptability because it provides basic knowledge and skills that are usable in a wide variety of situations,"[1] it is also a source of specific skills for application in the present occupational environment.

It is in the latter context that this chapter will explore the relationship between vocational education at the secondary school level and the initial occupational experiences of vocational curriculum graduates.[2] Attention is focused on the experiences of the graduates from a vocational curriculum per se as well as in comparison with similar information obtained from graduates of general education and academic curricula. The questions to be answered are: "How do graduates of vocational programs fare in an absolute sense?" and "How do they fare relative to graduates of non-vocational programs who have completed an equal number of years of formal education?" This analysis includes a discussion of the nature of post-graduation employment and educational experiences, as well as a retrospective look by the graduates at the advisability of the curriculum choice.

Section I deals with the question of the attitude of the graduates toward their curriculum choice in retrospect. Section II briefly analyzes the post-graduation training and educational experiences of the graduates. Section III is concerned with the initial post-graduation employment period. Section IV summarizes the entire chapter. Recommendations are reserved to Chapter 13.

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[1] Technology and the American Economy, Report of the National Commission on Technology, Automation, and Economic Progress, Volume I, February 1966, p. 44.

[2] Economists are showing increased interest in the computation of quantitative estimates of relative costs and benefits attributable to alternative types and levels of education. These techniques require detailed information on program and social costs and benefits. The present study was not designed to meet this objective. "Adequacy" is defined in terms of quantitative and qualitative measures of both subjective and objective types, but relative economic efficiency per se is not analyzed. A cost-benefit analysis of vocational education at the secondary school level is currently underway at the Institute for Research on Human Resources at The Pennsylvania State University.

Each of the variables discussed in the following sections is included as a measure of adequacy. No single measure is denoted as the best criterion for judgement. All contribute to the body of knowledge available to public policy decision-makers.

SECTION I: THE CURRICULUM CHOICE IN RETROSPECT

Introduction

The choice of an integrated series of secondary level courses, denoted as a track or curriculum, is usually made at the ninth or tenth grade level. Some flexibility is built into the curriculum to allow for some adjustments in its content. But once the basic decision has been reached -- whether to pursue a college preparatory, general, or vocational curriculum -- the potential employment opportunity awaiting the graduate is proscribed within rather broad limits. These opportunities are even more narrowly defined for graduates of specific programs and for individuals with particular characteristics. Therefore, since curriculum choice is an important factor in subsequent occupational opportunity and choice, the reason why one program is chosen rather than others should be of interest to anyone who is concerned with the efficient utilization of human resources.

In addition to knowing why a particular program was chosen it is important to know how satisfied a graduate is with the correctness of his choice, recognizing, of course, that he has limited information about the foregone alternatives. This perception of the decision is both retrospective, and to a large extent speculative, with regard to the probable results of other possible decisions. Since satisfaction is dependent upon post-graduation employment experience, the discussion of this variable is included in Section III.

Finally, it is of interest to know what types of jobs the graduates of a given program wanted while they were in school because this is one measure of the relationship they themselves perceive between their realized school experiences and the anticipated occupational experiences.

These, then, are the issues to be dealt with in this section.

Choice of Curriculum

The stereotyped image of vocational education is of a curriculum providing specific skills to students who are interested in skilled craft and operative or service type jobs. Is this a valid image? Why does a person choose a vocational program? Each graduate who was interviewed was asked why he chose the courses pursued in high school. The responses obtained from graduates of a vocational program are shown in Table 6.1.

TABLE 6.1

Reason for Curriculum Choice, by Sex
(Vocational Graduates Only)

	Male	Female
	%	%
Prepare for a Job	24	50
Prepare for the Future	12	12
Interested in Subjects	39	18
Prepare for Post-Secondary Education	3	3
Selected Easy Courses	4	4
Followed School's Suggestion	5	4
Outside Pressure	5	4
Other	7	5
Number	1150	897

As one would expect a priori,very few individuals chose the vocational curriculum as a preparatory base for post-secondary education of either an academic or skill-training nature. This is not to say that the vocational program should not serve as such a springboard, but rather that it is known that a stronger positive relationship now exists between academic secondary school training and eventual participation in formal post-secondary education than between the latter and high school level skill training (see Section II below).

The relatively small proportion (one-fourth of the males and one-half of the females) who chose the vocational curriculum to prepare for a job is surprising in light of the specificity of the training received. If the general classification "to prepare for the future" is included it is seen that two-fifths of the males and two-thirds of the females chose the vocational curriculum to prepare in one way or another for their post-graduation lives. About 20 per cent of each group chose the vocational curriculum because of interest in the subject matter, which implies a somewhat broader perspective on the selector's part than being concerned with narrow job orientation. It must be remembered that these are retrospective perceptions of reasons why a decision actually was made from three to eight years ago.

One often hears the charge that vocational education is a "dumping ground" for the students of lesser ability. The data show that a small percentage of the graduates was initially urged to pursue the vocational program by their school administrators -- five and four per cent, respectively, for males and females, and similar percentages reported "outside pressure" as the reason for their choice. The latter refers to parental suggestion in nearly all cases. These small percentages do not support the often heard charge that vocational education at the secondary school level provides a "dumping ground" for less able students. Neither do these findings substantiate the charge of administrative direction of selected students into the vocational curriculum. These issues as well as the comparative intelligence levels of the participants in the three curricula are discussed at greater length in Chapter 9 in the context of the Negro in vocational education.

When the sample of vocational graduates is stratified into three IQ groupings several differences appear in reasons for course choice. A larger share of the lowest IQ male group (those with measured scores of less than 90) chose the vocational path as preparation for a job than did members of either of the other IQ groupings (90-109 and over 109). Vocational education was apparently seen as a more specific vehicle to job opportunity by this group; in fact, it may have been seen as the only chance available. A smaller percentage of this group followed the advice of school officials in selecting the vocational curriculum than did members of the higher IQ groups. This once again suggests that the "dumping ground" charge may be unfounded. This statement is reinforced by the finding that a smaller share of the lower IQ girls reported outside pressure as a determinant of their choices than did girls in the higher IQ brackets.

A comparison of the reasons given by graduates of the three curricula turned up additional differences, most of which would be predicted beforehand. As can be seen in Table 6.2, more than half of the academic graduates chose the academic curriculum to prepare for college, even though none of these graduates entered college directly from high school. The remainder of the responses of this group is scattered throughout the other categories. One-fourth of the males and one-half of the females who graduated from a general curriculum made that choice to prepare for a job. These percentages are identical to those of the vocational graduates. Ten per cent of the male graduates of a general curriculum chose that route because they thought it would be easy. This was at least twice as large as for any other group.

TABLE 6.2

Inter-Curriculum Comparison of Reason for Program Choice, by Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%
Prepare for a Job	24	26	33	50	52	88
Prepare for the Future	12	15	10	12	13	66
Interested in Subjects	39	19	88	18	12	66
Prepare for Post-Secondary Education	3	8	65	4	6	66
Selected Easy Courses	4	10	1	2	3	-
Followed School's Suggestion	6	7	4	4	4	5
Outside Pressure	5	3	4	4	2	2
Other	7	13	6	6	8	5
Number	1150	703	31	897	1291	488

The differences found among the curricula are not unexpected. The vocational or general curriculum may be chosen to prepare for the future in just as specific a manner as others choose the academic curriculum to prepare for further education. Relative IQ scores do not appear to affect the reason for curriculum choice to any great extent, although it may still be a determinant of the curriculum which is chosen.

Father's Occupation

The effect of parental occupational classification on a young person's career pattern has been the focal point of many previous research studies. The interest in this variable for present purposes is as a factor influencing curriculum choice. For instance, do the children of blue-collar workers choose a vocational program more often than do the children of white-collar workers? This study tends to confirm the conclusions of other studies that there is a general relationship between the occupations of fathers and the curriculum choices of their children.

The responses obtained to the question "what was your father's occupation when you were in high school?" have been tabulated and classified in Table 6.3.

The right-hand column is presented for comparative purposes. It shows the occupational distribution of all heads of households living in metropolitan areas in 1964. This is presented as proxy for the occupational distribution of fathers of high school graduates from urban areas, since the latter data are not available. The most striking figures are in the non-specific skill category, where more than two-fifths of the fathers of vocational program graduates are classified, while only one-twentieth of urban heads of families are similarly categorized. Conversely, only one-fifth of the fathers of vocational graduates are employed in white collar occupations, compared with nearly one-half of all urban heads of families. This pattern is suggestive of a class structure of our educational programs.

A comparison among the curricula in Table 6.4 shows major differences in the types of jobs held by fathers of graduates from the respective curricula.

A much larger share of the fathers of academic graduates are categorized in white-collar jobs than are the fathers of graduates from the other two curricula. Conversely, fewer of the former group are engaged in manufacturing employment. These data reinforce the argument that socio-economic status, as measured here by fathers' job type, is an important factor in the curriculum choice, and, through this choice, on ultimate career patterns.

More intensive analysis of the relationship between parental job classification and a student's curriculum (and occupational) choice is needed. If the tentative findings shown here can, in fact, be generalized, then educational planners must either formulate compensatory activities within the school or encourage a modification of the external environment within which the student lives. Individual opportunity should not be limited by intergeneration transfers of circumstances. Individual interest, initiative, and ability should determine the career development pattern.

TABLE 6.3

Father's Occupation While Respondent was in School, by Sex (Vocational Graduates Only)

	Fathers of male graduates	Fathers of female graduates	Occupational distribution of heads of families in metropolitan areas 1964[a]
	%	%	%
White Collar:	21	22	47
Professional, Technical, Managerial & Kindred	12	15	32
Clerical & Kindred	5	3	9
Sales & Kindred	4	4	6
Service:	6	8	8[c]
Personal	2	3	
Other	4	5	
Manufacturing & Processing	73	70	44
Specific Skill[b]	30	28	39[d]
Non-Specific Skill[b]	43	42	5
Agriculture:			1
Number	835	654	

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[a] Adapted from U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 49, "Income in 1964 of Families and Unrelated Individuals by Metropolitan-Nonmetropolitan Residence," 1966, Table 7, p. 19.

[b] The "specific skill" and "non-specific skill" classifications are secondary groupings derived by dichotomizing the D.O.T. titles. See Appendix C for a listing of the occupations which are included in each category. In general, the skilled crafts, trades, and operative occupations are included in the "specific" grouping.

[c] Not separable into similar sub-classifications.

[d] Includes "craftsmen and foremen" and "operatives."

TABLE 6.4

Inter-Curriculum Comparison of Father's Occupation, by Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%
White Collar:	21	24	37	22	20	40
Professional, Technical, Managerial & Kindred	12	16	23	15	11	26
Clerical & Kindred	5	4	9	3	6	6
Sales & Kindred	4	4	5	4	3	8
Service:	6	9	7	8	9	6
Personal	2	3	2	3	3	2
Other	4	6	5	5	6	4
Manufacturing:	73	67	56	70	71	54
Specific Skill	30	30	30	28	27	22
Non-Specific Skill	43	37	26	42	44	32
Number	835	498	388	654	920	358

School's Effort to Prepare Graduates for a Job

Using a graduate's retrospective perception of the effort made by his school to prepare him for a job as a measure of educational adequacy involves some interpretive hazards. The influence of post-graduation experiences on retrospective response has already been mentioned as one of these uncontrolled elements. Many factors enter into an evaluation of this aspect of a school's activity. One could hypothesize, for instance, that non-vocational program graduates would more often think their school made no real effort to prepare them for "a job" *per se* than would their vocationally trained counterparts. A differential in the effort might also be expected between comprehensive and separate vocational high schools.

The graduates were asked the following question: "Do you think your school made a real effort to prepare you to go out and get a job?" The responses of the vocational graduates are listed in Table 6.5.

TABLE 6.5

"Did Your School Make a Real Effort to Prepare You for a Job?", by Sex (Vocational Graduates Only)

	Male	Female
	%	%
Yes	84	85
No	13	13
No Answer	3	2
Number	1156	906

The overwhelming majority of the respondents thought their school had made a real effort to prepare them for a job. A control was placed on IQ score to see if the response were related to cognitive ability. A comparison of those male vocational graduates with IQ's under 90 and over 110 (eliminating the "average" group ranging from 90-110) showed that 79 per cent of the lower IQ group answered affirmatively when asked whether their schools made a real effort to prepare them, compared with 85 per cent of the higher IQ group. The six percentage-point differential, while not large, is suggestive of the need for more intensive study of the role played by the schools in specific job preparation. Do the low IQ students merely perceive the situation differently, or are they treated differently? This is an important question because as Harold Smith pointed out in 1963, "it should be the aim of the public schools to let no one leave school, even by graduation, without reasonable preparation for what he will do next."[3] The majority of the vocational graduates will move directly into the labor force. This will require what has been referred to as "flexible pupil-centered administration (wherein) each individual would be placed in an activity commensurate with his interests, ability, and employment opportunity."[4]

Again, an inter-curriculum comparison reveals differences (see Table 6.6). The higher percentage of "yes" responses by vocational graduates is to be expected because of the basic objectives of the program. The same level of positive response by female graduates of a general program is explained by the job-oriented nature of the courses comprising the general curriculum for this group. The distressing finding is that about one out of three graduates from the other groups, academic graduates of both sexes and male graduates of a general curriculum, did not think that sufficient

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[3] Smith, Harold, Education and Training for the World of Work: A Vocational Education Program for the State of Michigan, The Upjohn Institute for Employment Research, 1963, p. 7.

[4] Suffolk County Board of Education in Cooperation with the New York State Education Department, A Study Report on Vocational Trade and Technical Education for Suffolk County Secondary Schools, 1962, p. 12.

TABLE 6.6

Inter-Curriculum Comparison of School's Effort
To Prepare Graduates for a Job, by Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%
Yes	84	70	63	85	81	62
No	13	28	34	13	17	35
No Answer	3	2	3	2	2	3
Number	1156	701	530	906	1287	487

effort was made on their behalf. This is not to be read as "one out of three high school graduates from an academic curriculum" because the sample excludes those who entered college immediately, but a substantial number of graduates were expressing the thought that they entered "what they will do next" with inadequate preparation.

Type of Job Wanted While in School

One measure of the realism of a student's curriculum choice is the opportunity he expects to be open to him as a result of that choice. Each member of the sample was asked what type of job he had wanted while still in high school. The response may not be a perfect measure of actual student expectation while he was in school because of the retrospective nature of the answer. Intervening circumstances undoubtedly have affected the job classification shown in Table 6.7.

One-fourth of the male graduates from a vocational curriculum wanted to get white-collar jobs, primarily semi-professional titles, such as draftsman and laboratory technician. As one would expect, because of the content of most vocational programs, one-half of the male graduates wanted jobs in the manufacturing and processing sector. One-third of this latter group (17 per cent of the total male vocational sample) wanted jobs in the metal working and mechanic fields. Only one per cent of the male vocational graduates wanted jobs in the service sector. Since this is a rapidly expanding area of employment for the total economy, it would be desirable if local administrators would look into the demand for their own graduates who might seek jobs in this sector.

The female occupational distribution is strikingly different, but in expected ways. Over two-thirds of the female graduates of a vocational

TABLE 6.7

Types of Jobs Wanted While Still in School, by Sex
(Vocational Graduates Only)

	Male	Female
	%	%
White Collar:	27	68
Professional	4	6
Semi-Professional	16	2
Managerial	1	-
Clerical	5	59
Sales	1	1
Service:	1	13
Manufacturing:	51	7
Not Specified:	21	12
Number	1150	903

program wanted white-collar jobs, but almost all of these fall in the clerical sector: primarily secretarial, stenographic, and typist jobs. Only seven per cent of the female graduates wanted jobs in the manufacturing and processing area, and 13 per cent sought employment in the rapidly growing service sector.

Both groups, male and female, were apparently quite realistic in terms of the relationship between the training they were receiving and the types of jobs they wanted to get. The boys were concentrated in trade and industrial courses and wanted manufacturing jobs. The girls were concentrated in office training courses and wanted secretarial jobs. The small proportion of either group who wanted service sector jobs reflects, to some extent, the result of a lack of curriculum emphasis in this area, even though it promises to be one of the best sources of opportunity in the immediate future.

Stratification of these distributions of the job sector by IQ score revealed several additional findings. A much smaller percentage of the low IQ groups, male and female, said that they wanted white-collar jobs. The percentages were especially low in the semiprofessional area for males and the clerical area for females. Two explanations can be offered. The graduates with lower IQ's may be aware of their relative shortcomings and do not aspire to highly competitive fields. Subsequent experience may have influenced the perspective of these graduates on their prior experiences and decisions. A combination of these two factors is perhaps most reasonable. The deficit in the white-collar sector is made up by an excess of those with lower IQ's who wanted jobs in the manufacturing area.

An inter-curriculum comparison of the types of jobs wanted by the graduates illustrates the importance of the link between curriculum choice and perceived job opportunity. It is, of course, recognized that students often choose a curriculum as a result of a prior decision concerning their desired occupation. No one way cause-and-effect relationship, but rather a strong interrelationship, is being suggested. Table 6.8 compares the occupational distributions of the graduates from the three curricula.

Inverse relationships were found among the males in a comparison of the professional and semiprofessional areas. A descending order was found from academic to vocational in the respective shares who wanted professional jobs, and an ascending order was found from academic to vocational in the percentage of those who wanted semi-professional (largely technican) jobs. Similarly, while over one-half of the male graduates of a vocational program had wanted jobs in the manufacturing sector, only five per cent of the academic graduates expressed this preference. Finally, the share of those who did not specify the type of job they had wanted is directly related to the curriculum taken. About 20 per cent of the vocational graduates and slightly more than one-third of the general graduates did not indicate a preference. Nearly 60 per cent of the males who were academic graduates did not specify the type of job wanted. A similar ordering, with different magnitudes, was found in a comparison of the female groups. The major differences among the females who did have a preference were in the white-collar sector. One-third of the academic graduates wanted professional jobs, mostly as nurses, while the overwhelming majority of the graduates from the other two curricula hoped to secure clerical jobs.

TABLE 6.8

Inter-Curriculum Comparison of Type of Job Wanted, by Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%
White Collar:	27	39	36	68	78	53
Professional	4	10	24	6	5	32
Semi-Professional	16	9	6	2	1	7
Managerial	1	2	1	--	--	--
Clerical	5	16	4	59	71	13
Sales	1	22	1	1	1	1
Service:	1	1	1	13	6	3
Manufacturing:	51	24	5	7	1	--
Not Specified:	21	36	58	12	15	44
Number	1150	702	528	903	1290	492

The broad sectoral pattern of desired employment was closely related to the individual curriculum pursued. Male graduates of a vocational program wanted manufacturing and technical jobs, while female graduates from the vocational programs wanted clerical positions. Those academic graduates of both sexes who did specify the types of jobs they wanted gave professional job titles, but many did not specify a preference. The responses of graduates from a general curriculum are distributed in a pattern similar to that of the vocational group.

Summary

The data presented in this section have been used to analyze the retrospective thinking of graduates of the three high school programs. The "typical" graduate of the vocational curriculum chose the vocational curriculum to prepare for the future. Some were more specific in terms of job preparation than others. The fathers of vocational graduates were more likely to be employed in blue-collar jobs than the aggregate share of blue-collar jobs in the economy would suggest. Most of the graduates thought that their schools made a real effort to prepare them for jobs, but a disturbing number did not think an adequate effort was extended. Finally, the types of jobs wanted while in school by the male and female respondents who were vocational graduates corresponded quite closely with the curriculum emphases for their respective sexes.

A larger share of the lowest IQ grouping chose the vocational curriculum to prepare for a job than is found in either of the other two groups, and members of this same group were apparently aware of their limitations as evidenced by the kinds of jobs they said they had wanted while in school. These findings would seem to indicate that occupational aspirations and the parental occupation models were both closely related to the vocational curriculum choice.

In light of these expectations from the programs by the students, it is of interest to see whether or not they were fulfilled by actual experience. A comparison of these findings with comparable data for graduates of the other two curricula did not result in any unexpected differences. The responses of the general curriculum graduates closely corresponded to those of the vocational group. The graduates of an academic curriculum were totally different. They chose the academic program to prepare for college. Their fathers were much more likely to be white-collar workers. They were less enthusiastic about the correctness of their curriculum choice, probably because they did not go on to college and had no marketable skill. They, of course, were less likely to think that a real effort had been made to prepare them for jobs. Finally, the graduates of academic programs were far more unsure of what kind of job they had wanted while still in school. Those who did specify a particular job title most often named a white-collar job.

Although none of these findings are surprising, they do emphasize the differences inherent in both the curricula themselves and in the individuals who pursue each of them. The goals of the programs are properly different, and so are the objectives of the students. The really significant objective is to assure the matching of goals between the curriculum and the participant.

SECTION II: POST-GRADUATION TRAINING AND EDUCATION

Introduction

Another measure of the adequacy of a given educational program is the frequency of subsequent participation in a training or educational program at a higher level (or of a different type). In the present study the objective was to assess the adequacy of vocational training at the high school level in preparing graduates to perform competently the tasks subsequently required of them in their jobs. This objective was partially accomplished in Section I and will be discussed in Section III by describing the absolute and relative perceptions and accomplishments of graduates from the vocational, general, and academic curricula. In a similar manner, this section compares participation rates in post-graduation training and education by the graduates from the respective curricula.

Participation Rates

Table 6.9 shows the proportion of graduates from the various curricula who have subsequently participated in training programs. A number of interesting relationships were found. The data were first stratified by measured IQ score and the "average" group (90-109) has been deleted to facilitate a comparison of the relative participation rates of those graduates whose IQ's place them at opposite ends of the intelligence distribution.

Substantially larger proportions of the higher IQ groups continued their education than did those with measured IQ's of less than 90, except female graduates from either a vocational or general curriculum. The group participation rates for the latter two groups were also lower than those for the other classifications. These findings are consistent with those of the analysis of Section I. Female graduates of non-academic curricula were found to be more satisfied with the relevance of their training to the tasks expected of them. Given the high concentrations in commercial, needle trade, and beauty culture fields at the high school level, it was not surprising that the graduates felt less need (or desire) to pursue further training. Apparently, the skills learned by girls in these programs were more readily adapted to actual job requirements than was true of the employment sector for males.

An inter-curriculum comparison shows that graduates from an academic program, male and female, more often engaged in subsequent training than did

TABLE 6.9

Graduates Receiving Post-Graduation Training or Education, by Sex and IQ

	Male			Female		
	IQ Under 90	IQ Over 100	Group* total	IQ Under 90	IQ Over 100	Group* total
	%	%	%	%	%	%
Vocational Graduates	22	41	30	29	29	24
Number	(36)	(53)	(343)	(32)	(32)	(224)
General Graduates	32	40	38	29	32	27
Number	(27)	(33)	(268)	(41)	(59)	(351)
Academic Graduates	36	64	56	27	66	59
Number	(13)	(99)	(297)	(6)	(105)	(295)

* --includes those for whom no measured IQ scores were recorded.

graduates of the other curricula. Again, this fits in with previous findings that the academic graduate was more uncertain about the type of work desired and, therefore, of the relationship between high school courses and occupational requirements.

In addition to the adequacy of curriculum content, ceteris paribus, it is interesting to note differences in participation rates of Negroes and whites in post-graduation training (see Table 6.10).

Each sex-curriculum category presents a different case. The participation rate in post-graduation training by Negro males who graduated from an academic program was half that of comparable whites, 29 and 60 per cent, respectively. This is certainly not explained by greater adequacy of high school training of Negroes and the resultant lesser need for additional education. Relative access, desire, and financial means must account for the difference. The participation rate in post-graduation training by white males who pursued a vocational curriculum was higher than that of Negro academic graduates, even though the white vocational rate was approximately half that of white academic graduates.

The data collected in this study did not include a variable to differentiate need to continue from desire to continue. This is suggested as a fruitful area for subsequent research. Why do (or do not) graduates of the respective curricula at the high-school level continue their education? Techniques to separate the influence of such factors as need, desire, and means need to be developed.

Girls in both color groups who graduated from the vocational and general curricula participated in post-graduation training in comparable proportions (approximately one-in-four), but much larger shares of graduates

TABLE 6.10

Graduates Receiving Post-Graduation Training or Education by Sex and Color

	Male		Female	
	White	Negro	White	Negro
	%	%	%	%
Vocational Graduates	32	18	24	24
Number	(303)	(38)	(178)	(45)
General Graduates	39	34	28	25
Number	(225)	(44)	(289)	(66)
Academic Graduates	60	29	62	50
Number	(269)	(23)	(240)	(55)

from academic programs did so -- one-half of the Negro girls and three out of five white girls. The inter-curriculum relationships were expected on the basis of previous findings, but the absence of differences between the color groups in the case of the job-oriented curricula was somewhat surprising. There was apparently a difference in the need for, or access to, post-graduation training between Negro males and females. The data available in this study did not permit an analysis of their relative importance. Color and curriculum, then, both appear to be determinants of participation in post-graduation training.

An indication of the impetus provided to undertake training initially is shown in Table 6.11. At least two-thirds of each sex-color-curriculum group undertook the training on their own and, in most instances, the proportion was higher than nine out of ten. Color was closely related to whether or not training was undertaken, but no consistent difference appeared between the color groups in the source of impetus to undertake training. Relatively small numbers reported company encouraged or financed training. This is consistent with the failure of employers to provide training, as reported in Chapter 7. As the market for specific skills becomes less fluid because of the overall growth and strength of the economy it is likely that a larger share of employer-initiated training will be found.

A wide variety of training programs was taken by the high school graduates interviewed. College courses (full or part time) accounted for a significant part of post-graduation training, ranging from 12 per cent of the female vocational graduates to 23 per cent of the male academic graduates. Business courses accounted for a large share of all female training, followed by nursing and medical technology. A large number of males also took business and engineering technology courses.

Summary

Each of the variables (IQ, color, curriculum, and sex) controlled in this analysis appeared to have some influence on participation rates in post-graduation training or education. More graduates with measured IQ's higher than 109 participated in training than did graduates from the same curriculum, but with IQ's of less than 90. This difference is probably due more to entrance standards; i.e., access, rather than need or desire. A larger proportion of academic graduates participated in additional training or education than did graduates from either of the other two curricula. The difference was more pronounced among the female groups than male groups. Negroes participated to a lesser extent than whites in all cases, except females who graduated from a general or vocational curriculum, where the proportions were comparable. The vast majority of graduates undertook the training on their own, even when categorized by sex, curriculum, and color.

These findings indicate the need for more intensive research on the problem of post-secondary training and education. Who participates and who does not, and why? Who completes a program and who drops out, and why? What are the benefits of training when compared to the experiences of comparable control groups who did not receive training? These and other related questions beyond the scope of the present study deserve attention.

TABLE 6.11

Inter-Curriculum Comparison of the Source of Impetus to Undertake Training, by Sex and Color

	Male						Female					
	Vocational		General		Academic		Vocational		General		Academic	
	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro
	%	%	%	%	%	%	%	%	%	%	%	%
Own Effort	76	94	85	92	90	66	90	91	93	97	86	90
Company	14	5	8	8	4	18	7	4	3	2	10	6
Other	10	1	7	--	6	16	3	5	5	1	4	4
Number	301	35	218	40	261	23	177	46	237	55	281	67

Note: Percentages are of those who did undertake post-graduation training, not total group number.

SECTION III: THE FIRST FULL-TIME JOB

Introduction

Entrance into the labor force for the first time on a full-time basis usually involves a period of search during which the relationship between interests, abilities and training, and job tasks may be quite tenuous. This process is especially prevalent among high-school graduates who enter the work force immediately after graduation. For this reason, the following definition of a full-time job was chosen: a job held at least three consecutive months in which a graduate was employed 30 hours or more a week.

This section focuses on point-in-time information concerning the first full-time job obtained by the vocational graduates in the sample. Inter-curriculum comparisons are also presented.

Job Title

Knowledge of the occupational distribution of vocational graduates in their first full-time job allows an assessment of the relationship between investment in skill training and occupational utilization. Table 6.12 shows the occupational distribution of the vocational graduates in their first jobs and compares this distribution with the types of jobs wanted, as shown previously in Table 6.7.

There is a strong similarity between the two distributions. One-third of the male graduates wanted, and secured, white-collar jobs, although the distribution of actual jobs is weighted more heavily with clerical occupations than the distribution of desired jobs. This is to be expected at the initial point in a career development pattern. Undoubtedly upward mobility will alter the internal composition of white-collar employment over time for this age cohort. The female distribution differs primarily in the larger proportion who obtained jobs in the manufacturing and processing sector rather than in the clerical area as desired. It should be noted that these are comparisons among aggregates and that no comparison is made between desired and actual occupational classifications of specific individuals.

A greater disaggregation of this occupational information is presented in Table 6.13 where the proportion of graduates from each of eleven specific vocational courses who entered training-related jobs[5] is shown.

Although the measure of training-relatedness is approximate, it is readily apparent that a wide variation exists in the (immediate) utilization of skill training. It should be noted that the four highest ratios of related employment are in predominately female programs. The more highly capital-intensive mechanical and electronics programs have a relatively poor initial related-placement rate.

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[5] The training relatedness of a job is defined here by the two-digit D.O.T. classification of the first full-time job obtained by the graduate.

TABLE 6.12

First Job Title Compared with Type of Job Wanted, by Sex (Vocational Graduates Only)

	Male		Female	
	Actual	Wanted	Actual	Wanted
	%	%	%	%
White Collar:	32	34	70	77
Professional, Technical Managerial and Kindred	13	25	4	9
Clerical and Kindred	16	7	59	67
Sales and Kindred	3	2	7	1
Service:	8	2	15	15
Manufacturing & Processing:	60	64	15	8
Specific Skill	24		4	
Non-Specific Skill	28		10	
Apprentice	8		1	
Number	1052	909*	851	795*

* Includes only those who specified the type of job wanted.

When inter-curriculum comparisons with actual jobs obtained are made, the differences are not as striking as they were in a comparison of the types of jobs wanted while in school. Table 6.14 presents these occupational distributions.

While the distribution of types of jobs wanted is similar for male graduates from the vocational and general curricula, it is seen here that the general graduates actually obtained jobs similar to those of graduates from academic programs. The major differences among the groups were the smaller proportion of male graduates from a vocational program in the clerical sector and the larger share of this group in manufacturing jobs requiring specific skills (relative to the other two curriculum groups). These relationships were not unexpected because of the established criteria for entry level employment in the respective occupational sectors.

How Job Was Obtained

Employment opportunity must be realistically defined as a job opening for which an individual is qualified and of which he is aware. Vacancies which are real but unknown to those seeking work are not meaningful alternatives. A lack of knowledge about alternatives is a major impediment to market efficiency and effectiveness. Therefore, an assessment of the relationship between training and occupational development must take into

TABLE 6.13

Training-Relatedness of First Jobs Obtained by Graduates from Eleven Selected Vocational Programs

Vocational Programs	% Who Obtained Related Employment	Number
Commercial	81	463
Beauty Culture	81	74
Dressmaking	61	41
Distributive	51	69
Printing	45	66
Mechanical Drawing	40	50
Automotive Mechanics	33	141
Electronics	31	111
Nursing	31	26
Machine Shop	26	124
Electricity	12	64

TABLE 6.14

Inter-Curriculum Comparison of Occupational Distributions, by Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%
White Collar:	32	45	53	70	77	74
Professional, Technical, Managerial & Kindred	13	6	14	4	4	14
Clerical & Kindred	16	32	32	59	64	52
Sales & Kindred	3	7	7	7	9	8
Service:	8	11	13	15	10	14
Personal	5	8	10	15	8	13
Other	3	3	3	--	2	1
Manufacturing:	60	44	34	15	13	12
Specific Skill	24	11	4	4	2	3
Non-Specific Skill	28	29	27	10	11	9
Apprentice	8	4	3	1	--	--
Number	1052	621	460	851	1169	400

consideration the bridge that allows the individual to move from the training environment into the labor force, i.e., the job market place itself. How do secondary level vocational graduates get their first jobs? Table 6.15 shows the responses given by the vocational graduates.

One-third of the graduates obtained jobs through their own direct application. In this instance, job information available to the individual is a critical variable.

Another one-fourth of the males and one-fifth of the females found their first jobs through prior friendship (either personal or family) with the employer. Again, the spectrum of opportunity is closely circumscribed in this case. It is possible that the graduates in this group sought employment through other channels, but were either unsuccessful or unsatisfied.

Still another one-fourth of the graduates, both male and female, were assisted "by their schools." This classification includes assistance from both teachers and the placement office. Previous studies have found that teacher-assisted placement is very common among vocational curriculum graduates because of the contacts maintained by the instructors with the employers in their particular fields. The placement office of a vocational or comprehensive high school is potentially in the best position to administer effectively this bridging function.

Little use was made by vocational graduates of other channels, such as public and private employment agencies, newspaper advertisements, and competitive examinations. Studies of the use and non-use of the public employment service are now underway, and it is possible that the services provided by these agencies will change dramatically in the near future.

TABLE 6.15

How First Job was Obtained, by Sex
(Vocational Graduates Only)

	Male	Female
	%	%
Direct Application	34	31
Personal or Family Friend	26	19
School Placement	23	23
Employment Agency (Public or Private)	7	13
Newspaper Ad	5	6
Examination	1	4
Miscellaneous	4	4
Number	1070	856

When these data were stratified by IQ, two differences were found among the male groups. One-third of the lower IQ group (measured score of less than 90) obtained their jobs through prior personal or family friendship with the employer, while only one-fourth and one-fifth of the middle (90-110) and higher (over 110) IQ groups, respectively, used this source.

The male graduates with relatively low IQ were apparently more dependent on non-objective labor market forces than were their more fortunate classmates who had higher measured IQ scores. At the same time only 15 per cent of the low IQ group were placed through their school's auspices, compared with 25 per cent of the higher IQ groups. Additional research in this area is necessary to discern whether the schools are unable or unwilling to place the relatively disadvantaged graduate. No major differences were found among the females based on IQ.

Table 6.16 compares the methods used to obtain employment by graduates of the three curricula. The major difference which was found in a comparison of the respective curricula was in the share who were placed through their school. Approximately one out of four graduates of a vocational curriculum used this means to get a job, and one-fifth of the female graduates from a general curriculum obtained their first job through this method, but less than ten per cent of the academic graduates and the male graduates from a general curriculum did so. The same question can be posed here that was introduced with regard to the low IQ group: can (and should) the schools serve the transitional needs of the non-vocationally trained youth to the same extent that they now serve the graduate who possesses specific skills as a result of training received?

TABLE 6.16

Inter-Curriculum Comparison of How First Job Was Obtained, by Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%
Direct Application	34	42	40	31	34	44
Personal or Family Friend	26	32	29	19	19	20
School Placement	23	7	6	23	20	9
Employment Agency	7	9	12	13	14	13
Newspaper Ad	5	6	6	6	4	6
Examination	1	1	2	4	5	3
Other	4	3	5	4	4	5
Number	1070	641	472	856	1180	401

In general, the bridge between training and employment is an informal and unstructured one in which the individual's immediate environment is a major factor in determining where he will seek employment. A potential job market whose boundaries are determined by one's own knowledge of opportunities plus the awareness of family and friends is far from being an optimally efficient market in the sense of matching abilities and interests with tasks to be performed. Just as in the push for Negro civil rights it is insufficient to provide enabling legislation, so in the vocational education sphere it is not enough to provide skills. In the case of the non-vocational graduate no marketable skill has been provided in many cases, so that an efficient pipeline between school and job becomes even more critical in terms of the best use of human resources.

Starting Pay

One factor in the relative desirability of a job is the rate of pay. Comparative rates of pay in jobs attained by completion of alternative curricula is also a factor in the earlier determination of which school program to choose. Table 6.17 shows selected measures of the starting pay received by vocational graduates in their first full-time job.

The median hourly pay rate of the lowest ten per cent of male graduates was $.90, and nearly one-half of the male graduates started at $1.20 an hour or less. At the other end of the range, the highest ten per cent of the male graduates received a median rate of $2.40 an hour. The median rate for males was $1.30 an hour.

The range of hourly rates for females was both lower and narrower. The lowest decile of female graduates started at a median rate of $.70 an hour, and nearly 60 per cent of all female graduates received $1.20 an hour or less. The highest decile of females received a median rate of $1.80, and the group median was $1.20 an hour.

An analysis of earnings in the large cities by color (Negro or white), which is discussed in Chapter 9, reveals significant differences. Therefore, in order to investigate the significance of measured IQ and curriculum on a graduate's earnings, an inter-curriculum comparison of white students was made by sex and IQ. The data are shown in Table 6.18.

TABLE 6.17

Starting Pay* for First Job, by Sex
(Vocational Graduates Only)

	Male	Female
Lowest Decile	$ .90	$ .70
Highest Decile	2.40	1.80
Group Median	1.30	1.20
Number	1069	837

*gross hourly equivalent, medians

TABLE 6.18

Starting and Leaving Pay* on First Job by
Curriculum, Sex, and IQ (whites only)

	Vocational			General			Academic		
IQ Range	Start	Leave	N	Start	Leave	N	Start	Leave	N
Males									
Under 90	$1.20	$1.50	(97)	$1.30	$1.50	(47)	$1.20	$1.20	(11)
90-109	1.20	1.50	(410)	1.20	1.50	(219)	1.20	1.50	(115)
Over 109	1.30	1.70	(109)	1.20	1.60	(71)	1.40	1.50	(124)
Females									
Under 90	1.20	1.40	(71)	1.10	1.20	(72)	1.10	1.20	(7)
90-109	1.20	1.40	(266)	1.20	1.30	(420)	1.30	1.50	(89)
Over 109	1.20	1.40	(100)	1.20	1.40	(153)	1.30	1.40	(112)

*gross hourly equivalent, medians

Starting pay rates were quite comparable across curriculum and IQ categories, although the male graduates from the vocational and academic curricula who had IQ's above 109 and the general curriculum graduates with IQ's under 90 commanded slightly higher starting wages on the average than did the other male graduates. More significant, though, is an apparent earnings advantage accruing through time to the lower IQ graduates who had received vocational training relative to their non-vocationally trained counterparts. Males, whose IQ's exceeded 109 and who had received vocational training, secured pay increases greater than those obtained by the academic and general curriculum graduates. The same advantage over time was enjoyed by vocationally trained females whose IQ was in the "Under 90" range.

In summary, it can be said that while no pay-off in the form of a wage increment was immediately obtained by recipients of high-school level skill-training, subsequent advantages in the form of pay increases on the first job may accrue to the vocationally trained graduates -- particularly those having lower IQ's -- when compared to those graduates, in the same IQ range, who did not receive skill training.

When comparing pay increases through time it is necessary, however, to know over what period of time the increment was realized. It was found that the average male graduate from a vocational curriculum had spent three months (or one-third) longer on the first job than had the average male graduate from the academic curriculum (see Table 6.19). Because of this it does not necessarily follow that the entire pay differential between graduates from the respective curricula can be ascribed to the influence of the curriculum taken. The pay increments were too small to derive a meaningful index of increase in pay per unit time.

Rating of Preparation

One of the major issues in vocational education today is the alleged lack of communication between the schools and the employers. This leads, it is said, to the schools being "out-of-touch" with new developments resulting in the retention of obsolete equipment and programs, and failing to

TABLE 6.19

Length of Time on First Job, By Curriculum and Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
Median Time in Job (Months)	12.0	10.0	9.0	13.0	13.0	11.0
Mean Time in Job (Months)	16.3	15.2	13.0	17.7	17.1	15.6
Number	1026	650	479	869	1131	411

initiate new programs when demands for new skills are not being met. There are two groups who should know how good a job the schools are doing in preparing vocational students in equipment use and specific skills -- the employers and the graduates themselves. Each member of the sample was asked to rate his preparation for several specific aspects of each job held. A seven-point rating scale was used, ranging from 1 (very little preparation) to 7 (excellent preparation). The responses received from vocational graduates for the first job are categorized in Table 6.20 below.

Both measures for each variable fell in the "excellent preparation" range, as reported by the vocational graduates. This suggests several conclusions. First, the relationship between training received and tasks performed on the job was similar because preparation in the use of equipment and specific skills were both rated highly. Second, it is apparent that -- at least in the minds of the graduates -- the courses taken were not out of touch with the requirements of employers. It is possible that the graduates obtained jobs requiring so little special training that any secondary level program would have adequately prepared them to perform the required tasks. This hypothesis can be tested by comparing the ratings given by graduates of the non-vocational curricula. This is done in Table 6.21.

TABLE 6.20

Ratings of Preparation for First Job, by Sex
(Vocational Graduates Only)

	Male		Female	
	Median	Mean	Median	Mean
Use of Equipment	6.0	5.1	6.0	5.2
Necessary Skills	5.0	5.0	6.0	5.3
Number	529		457	

Rating Scale: 1-3 Very little preparation
4 Average preparation
5-7 Excellent preparation

TABLE 6.21

Inter-Curriculum Comparison of Ratings of Preparation
for First Job, by Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
Use of Equipment						
Median	6.0	4.0	3.0	6.0	5.0	4.0
Mean	5.1	3.9	3.2	5.2	4.9	3.6
Necessary Skills						
Median	5.0	4.0	4.0	6.0	5.0	5.0
Mean	5.0	4.2	3.9	5.3	5.2	4.3
Number	529	319	204	457	891	209

Table 6.21 indicates that there were differences in the quality of preparation. The graduates of non-vocational curricula in each case rated their preparation in the use of equipment and possession of necessary skills lower than did vocationally trained graduates. As expected, the academic graduates gave the lowest ratings.

The ratings of the graduates from the vocational curriculum were stratified by IQ group. The lower IQ male group rated its preparation higher than the higher IQ group. One explanation for this may be the relative sensitivity of the respective individuals to their training. Those with higher IQ's may be more aware of their inadequacies.

In addition to the graduates' thoughts concerning their preparation, the immediate supervisors of the graduates interviewed were asked to complete a rating scale of the employee's relative performance and preparation. This instrument was administered to the current (or last) supervisor, not the first one. Only in the case where a graduate had only had one job would this information refer to the same job as previous data presented in this section. Table 6.22 presents the findings.

The measures denoted as "overall performance" and "overall preparation" summarize the supervisor's rating of relative adequacy. The mean rating of each sex-curriculum group fell within the "average" range in both categories, but the median rating of overall performance for academic graduates of both sexes was above the mean, suggesting a skewed distribution of scores toward the positive end of the scale. It appears that immediate supervisors were

TABLE 6.22

Supervisor's Mean Rating of Graduates' Relative Preparation and Performance by Sex and Curriculum

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
Occupational Knowledge	3.0	3.0	3.2	3.0	3.0	3.2
Manipulative Skills	3.2	3.2	3.4	3.4	3.2	3.4
Personal-Social Qualities	3.2	3.5	3.5	3.5	3.3	3.5
Work Qualities and Habits	3.4	3.4	3.6	3.5	3.4	3.6
Overall Performance	3.4	3.4	3.6	3.5	3.4	3.5
Overall Preparation	3.2	3.2	3.4	3.3	3.2	3.3
Number	588	398	318	556	679	287

Rating Scale: 1 - Unsatisfactory
2 - Below Average
3 - Average
4 - Above Average
5 - Outstanding

more pleased with the adequacy of performance by the graduates from an academic program. This topic is treated in greater detail in Chapter 7, but it should be noted that adequacy of overall preparation was rated average in all cases.

Job Satisfaction

Satisfaction in a job is really a derivative of all the other factors previously discussed. One could hypothesize, for instance, that an increased number of job alternatives would lead to increased satisfaction in the job actually chosen, assuming that accurate information about each alternative was available to the decision maker. Similarly, the better prepared an individual is, the more satisfaction he should derive from his work. Of course, these relationships have varying degrees of applicability among specific occupational tasks.

To assess each respondent's satisfaction with various aspects of his work, a seven-point rating scale, similar to the job preparation scale discussed above, was administered. A rating of 1 indicates complete dissatisfaction with the aspect in question, and a rating of 7 indicates complete satisfaction. The ratings of work, pay, and promotional opportunity are presented in Table 6.23.

In this case the graduates gave lower ratings than were given on the job preparation scale. For instance, both male and female graduates were somewhat less than completely satisfied with their pay and opportunities for promotion in the first job. The graduates registered general satisfaction with the work tasks performed. Again, longitudinal and comparative analyses are required to assess adequately the significance of this dissatisfaction as the career development pattern evolves.

TABLE 6.23

Satisfaction Rating for First Job, by Sex
(Vocational Graduates Only)

	Male		Female	
	Median	Mean	Median	Mean
Work	5.0	5.0	6.0	5.1
Pay	4.0	4.0	4.0	4.1
Promotion	4.0	3.6	4.0	3.6
Number	1077		865	

Rating Scale: 1-3 Dissatisfied
4 Average
5-7 Satisfied

When an IQ stratification is made, the only difference that was revealed was in the perception of promotional opportunity, which the lower IQ group rated at 3 compared with a rating of 4 by the other two groups. This seems to be a valid perception of relative disadvantage by those with lesser cognitive abilities.

A comparison among the curricula (Table 6.24) revealed that the graduates of non-vocational curricula rated promotional opportunity at a level of 3, whereas the vocational graduates rated it at a level of 4. Since these were ratings of satisfaction with the first job it appears that those without specific skill training felt that they were at a relative disadvantage at the initial stage of career development regardless of whether or not this was true. No differences were found among the graduates of the respective curricula in terms of satisfaction with the type of work performed or rate of pay. Since they were engaged in quite different types of work, it is interesting to speculate whether an individual with certain characteristics gravitates to a given curriculum and subsequently to a given type of job, or if the scales used to measure satisfaction were insensitive to these differences.

TABLE 6.24

Inter-Curriculum Comparison of Satisfaction Ratings for First Job, by Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
Work						
Median	5.0	5.0	5.0	6.0	6.0	5.0
Mean	5.0	4.7	4.6	5.1	5.2	4.9
Pay						
Median	4.0	4.0	4.0	4.0	4.0	4.0
Mean	4.0	3.8	3.7	4.1	4.2	4.0
Promotion						
Median	4.0	3.0	3.0	4.0	3.0	3.0
Mean	3.6	3.4	3.5	3.6	3.5	3.3
Number	1077	641	489	865	1183	406

Rating Scale:
1-3 Dissatisfied
4 Average
5-7 Satisfied

In addition to the job satisfaction rating scale, a second instrument was administered as a corollary, or validation, measure. This instrument, called a Job Description Index, consists of a series of positive and negative words and phrases describing each of five aspects of the job situation. Scoring of the completed instrument was structured so that high scores indicate a positive description of that aspect of the job environment (see Chapter 2 for details and Appendix D for a sample instrument).

The results of administering this instrument to the graduates are presented in Table 6.25. The descriptions have reference to the current (or last) jobs of the graduates.

It is apparent that personal relationships were highly rated -- supervision and people worked with -- but the actual job conditions were less favorably described. The description of promotional opportunity by female graduates of each curriculum was particularly negative. Virtually no difference was evidenced among the curricula or the two sexes in the various aspects of the job other than promotional opportunity.

Reason for Leaving Job

Having had a job for at least three months (the vocational graduates held their first jobs for a median of one year), why would a person leave? Turnover is of critical importance for manpower planning, because it is the dynamic nature of the labor market which has caused such difficulty in matching supply and demand elements. What makes a person geographically mobile? Occupationally mobile? What differentiates the risk-taker from the risk-averter?

TABLE 6.25

Job Description Index, Current (or last) Job, by Curriculum and Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
Work	37	36	36	39	39	39
Pay*	36	36	36	36	38	36
Supervision	45	45	46	48	48	47
Promotion*	34	30	32	24	24	24
People	48	48	45	48	48	48
Number	1090	659	489	874	1194	419

Rating Scale: 0 -- only negative job descriptions checked
54 -- only positive job descriptions checked

* Obtained score multiplied by 2 to yield scores comparable to other three scales

The sixty per cent of graduates who had had at least two full-time jobs were asked why they had left the first job obtained after graduation. Table 6.26 shows the responses to this query.

Out of the total sample, 38 and 42 per cent of the male and female graduates, respectively, were still employed in their first full-time jobs. Of those who had left their first jobs, more than one in three left to get a better job elsewhere or were promoted within the employing company. Slightly over 20 per cent left because of dissatisfaction with either the job tasks or the employer. Twice as large a share of males were laid off as were females, but only four per cent of each sex were fired or had their jobs abolished. Only five per cent of the male graduates and four per cent of the females left their first jobs to return to school. These last percentages would be expected to be smaller for vocational graduates than for graduates of the academic curriculum. In fact, the share of academic graduates who left their first jobs to return to school was 23 per cent for males and 18 per cent for females (see Table 6.27). Two partial explanations are at hand. The graduates of an academic curriculum were better able to return to school both because of the institutional requirements of post-secondary education and because of the general socio-economic background of the group as a whole. Secondly, the academic graduates may have felt it was

TABLE 6.26

Reason for Leaving First Job, by Sex
(Vocational Graduates Only)

	Male		Female	
	N	%*	N	%*
Advancement Within Company	95	15	89	18
Got a Better Job	162	25	87	18
Dissatisfied	145	22	119	24
Layed Off	90	14	33	7
Fired	8	1	4	1
Job Abolished	19	3	16	3
To Go Back to School	35	5	22	4
To Enter the Service	52	8	--	
Miscellaneous	49	7	123	25
Still in Job	410		354	
Number		648		491

*--percentage of those who left first job

TABLE 6.27

Inter-Curriculum Comparison of Reasons Given for Leaving the First Job, by Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%
Advancement Within Company	15	17	16	18	16	23
Get a Better Job	25	21	23	18	16	10
Dissatisfied	22	27	18	24	24	20
Employer Action (Layed Off, Fired, Job Abolished)	18	12	9	11	11	8
Return to School	5	8	23	4	4	18
Enter the Service	8	7	4	-	-	-
Miscellaneous	7	8	7	25	29	21
Still in Job (Numbers)	(410)	(224)	(167)	(354)	(470)	(156)
Number	648	409	290	491	682	240

Note--percentages are of the number in the respective categories who left their first job

more essential to return to school once they entered the labor market and discovered they had very little to bargain with. No other major differences were found to occur consistently among the graduates of the respective curricula in terms of reason for having left their first jobs.

The IQ stratification showed that both male and female members of the highest IQ group more often registered dissatisfaction with the job as a reason for leaving than did members of the other two IQ groups. This suggests that these people were more sensitive to their own capabilities and the demand (or lack of demand) for application of their skills and talents.

In light of the small number of graduates who were advanced within the company it is necessary to ask what obligations employers have to provide on-the-job training at company expense. If the average employee remains on the job for only one year the employer will be reluctant to spend a large amount of money or time training a person to fulfill advanced job tasks. Of course, every employer benefits from the efforts extended by others similarly situated, but it is the outflow of internally trained manpower that is perceived, not the inflow of externally trained people. Employers, in general, did not think young people were more likely to change jobs frequently. (See Chapter 7.) Nevertheless, this problem should receive increased attention by policy formulators. For instance, what impact does the probability of military service confronting single males have on the decisions of employers to provide skills necessary for upgrading? The marriage prospects of female high school graduates presents a similar problem to employers.

Advice to a Young Person Today

In light of the post-graduation experiences of the graduates from the respective curricula it is of interest to know what advice they, in turn, would give to students who must make similar decisions today. Do the vocational curriculum graduates think they made the "right" choice; i.e., would they recommend similar decisions for others; or has their experience with the realities of the world of work changed their view of the efficacy of secondary level vocational training? Table 6.28 presents responses to the question: "If you were talking to a young person just starting high school, would you suggest he (she) take the courses you took?" And, "If no, what courses would you suggest he (she) take?" If the respondent replied, "It depends on the person," the interviewer said "Well, suppose the student were pretty much like you were at that age?"

TABLE 6.28

Advice to a Young Person Confronted with Curriculum Decision, by Sex
(Vocational Graduates Only)

	Male	Female
	%	%
Take Vocational Curriculum	66	69
Do Not Take Vocational Curriculum	7	9
Take Another Curriculum (Specified)	9	5
Take Courses Which Will Prepare You for the Future	4	4
Take Whatever Courses You are Interested In	3	3
Depends on Person	10	9
Don't Know	1	1
Number	1153	906

Two-thirds of the vocational curriculum graduates would advise young persons to take the same courses they had taken, and only one in ten would recommend that they not pursue a vocational curriculum. Despite the prompting of the interviewer, one out of every six respondents would leave it up to the individual to choose depending upon his own interests and abilities. This suggests that most vocational graduates have fairly strong feelings, mostly positive, about the courses they took. It has already been noted, however, that individuals speak from limited experience and have little actual knowledge for comparative judgment concerning the desirability of alternative curricula. The reader is cautioned not to judge "adequacy" on the basis of "satisfaction," although the latter is certainly an important element in what would be considered to be an adequate educational program.

When these advice categories were stratified by measured IQ, several differences among the groups appeared. Far more high IQ girls would advise a young person not to take the vocational curriculum than would girls classified in the lower IQ groups. This relationship was not found among males. In fact, more of the middle IQ male group would provide negative advice than would those categorized either above or below them. Measured IQ was not consistently related to the graduates' retrospective thinking about the curriculum choice.

It is interesting to note that in an inter-curriculum comparison more graduates of a vocational program would advise similar choices by young

TABLE 6.29

Inter-Curriculum Comparison of Advice to a Young Person Confronted with Curriculum Choice, by Sex

	Male			Female		
	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%
Take Same Curriculum	66	42	59	69	60	58
Do Not Take Same Curriculum	7	11	6	9	7	6
Take Another Curriculum (Specified)	9	28	14	5	17	1[illegible]
Take Courses Which Will Prepare for the Future	4	6	4	4	4	7
Take Courses that Interest You	3	2	2	3	3	4
Depends on Person	10	10	11	9	8	9
Don't Know	1	1	4	1	1	2
Number	1153	701	532	906	1289	494

persons than would graduates of either of the other curricula. Only 42 per cent of the male graduates of a general program would give positive advice compared with 66 per cent of the male graduates of a vocational curriculum. The proportion of every other sex-curriculum group who suggested a decision similar to its own falls within this range (see Table 6.29).

As one measure of the correctness of their own curriculum choices, then, these findings indicate that the vocational graduates were more satisfied than were the graduates of either of the other programs. The qualification has been made that only those who did not enter college directly from high school were included in this study. The objectives of the general curriculum have never been as clear as those of the other two curricula, especially for boys. The relatively low percentage of males who would recommend it reflects this lack of direction.

SECTION IV: SUMMARY AND CONCLUSIONS

General Summary

The approach taken in this chapter has been to describe selected aspects of the initial employment experience of high school graduates, to discuss the subjective views expressed by the graduates about the propriety and relevance of their secondary level education to the requirements of these jobs, and to analyze participation rates in post-graduation training or education. This has been accomplished through a selective presentation of data compiled from personal interviews with the graduates. The graduates of vocational programs have been studied both as a separate entity and in comparison with graduates from the academic and general education curricula. The objective of this descriptive presentation has been to find subjective and objective differences among these groups with regard to their retrospective thinking about the curriculum they had pursued and the employment experiences subsequently realized.

The basic hypothesis of the study itself is, of course, that differences do exist among graduates of the respective curricula, that these differences are at least partially explained by unique aspects of the respective curricula, and that some of these differences are deemed to be socially undesirable. If such factors can be identified and the hypothesis is, therefore, not rejected, the findings of this study will prove useful in substantiating the need for remedial action by educators and interested citizens. The goal of such action would be to provide secondary education curricula embodying sufficient flexibility that each student would be adequately prepared for "what he will do next."

This study focused on the objectively determinate educational goals of adequacy of preparation for a job and the graduates' satisfaction with the training received. There are, obviously, other goals of secondary education, but these are either ill-defined or not amenable to objective assessment. It would be useful, for instance, to have a clear conceptualization of the trade-offs inherent in the attempt to attain any single objective of secondary level education. This task is both beyond the scope of the present study and difficult to conceive of in operational terms.

The data presented in this chapter lead to the conclusion that the male graduate of a vocational curriculum is more satisfied with the relevance of his school experience to the requirements of his post-graduation environment than are male graduates of either of the other curricula. It has been noted that the study included only those graduates who did not go on to college immediately. The person who graduated from a college preparatory (academic) curriculum, but who did not go to college, was obviously handicapped in the competition for particular types of entry level jobs. This was substantiated by the greater proportion of academic graduates who participated in post-graduation training programs. The male youth who graduated from a general curriculum appeared to possess the least advantage of the three groups. He had neither a marketable skill such as that obtained by a participant in a vocational program nor a strong background in academic courses which would enable him to qualify for post-secondary education.

The girls who graduated from a general curriculum were not as dissatisfied as were the males referred to above, probably because of the greater degree of job-orientation inherent in the courses offered to girls. The absence of any major differences among the female groups in these retrospective responses suggests that the skill requirements for the types of jobs obtained by girls just out of high school may not be as specific as those sought in male applicants. Therefore, a girl who graduates from any one of the programs can obtain a job in, say, a clerical capacity. Even specific skills such as typing are more widely diffused among the female graduates than are such male skills as mechanical drawing.

Predictably, the vocational graduates more often thought their school officials made a real effort to prepare them for a job than did graduates of the other curricula. The conclusion to be drawn on the basis of the graduates' own evaluations is that curriculum choice was of greater importance to males than it was to females with respect to relative job opportunity. Specific jobs require certain minimal qualifications, and the conclusion drawn is not equally applicable in all instances. Smaller differences found in the proportion of female graduates from the respective curricula who participated in post-graduation training support the conclusion that there was less need for girls to have specific vocational skills to obtain entry-level jobs.

A one-digit D.O.T. classification of job titles for the graduates' initial job experiences showed several major differences among the curriculum groups. Male graduates of a vocational program had trained for and obtained jobs in the manufacturing sector, although more were classified in jobs requiring only non-specific skills than the corresponding distribution of types of jobs wanted. Since this is the initial full-time job held in all cases (defined as three months or more), it is not surprising that this deviation from the desired distribution was found. Substantially more male graduates of a vocational program were classified in the clerical sector, however, than had desired such jobs, and this appears as one of the worst misallocations of skills found in this study. The inadequate utilization of Negroes' skills will be discussed in Chapter 9.

Nearly 60 per cent of the female graduates from vocational programs obtained clerical employment, only slightly less than the share who had wanted this kind of job. This proportion is smaller than the percentage of girls who took commercial and business courses as the major emphasis of their vocational curriculum. Therefore, the misallocation of females was just the reverse of that of males. Here, girls who were trained to perform clerical tasks obtained jobs in the manufacturing sector.

These findings are suggestive of the tenuous relationship between skill training and tasks performed in jobs obtained after graduation. The variability of training-related employment among graduates of specific vocational courses has been discussed. An intensive analysis of this relationship is included in Chapter 9 for a sub-group of the vocational graduates. More intensive work needs to be done on such questions as the significance of curriculum content for subsequent career development patterns of particular groups; e.g., Negroes, girls, lower IQ groups, all non-college bound youth, etc.

The only major difference that was found among the curriculum groups with respect to methods used to obtain employment was that vocational graduates relied much more heavily on school placement facilities. Additional research is necessary to determine to what extent this is due to the types of jobs handled by schools, and how this failure to serve all students adequately can be overcome. Additional study is also required on the problem of differential access to, and use of, specific methods of obtaining employment by particular groups.

Differences among the curriculum groups' starting pay rates were minimal and average increases in compensation per unit time in the first job were generally comparable. There was some evidence that the vocational males, particularly in the lower and higher IQ categories, may have gained some advantage over time. The female pay range was truncated and slightly lower than that for males, and the pay range for male graduates of a vocational program extended beyond that for male graduates of the other curricula. Entry level pay was restricted within narrow limits, in general, for high school graduates of any curriculum. However, because the graduates of the respective curricula generally entered different occupational sectors -- most academic graduates accepted semi-professional and clerical jobs while vocational graduates were more often found in industrial occupations -- it is suggested that pay differentials would appear among the curriculum groups over time. There is no a priori basis for predicting which curriculum group would advance more rapidly. The data do suggest, though, that there may be some pay-off increment for vocational graduates over and above the compensation of non-vocational graduates. Other sections of this report suggest reasons why no substantial differences were found. Briefly, these include such factors as the failure of many trade unions to recognize prior training through increased starting pay, the general tendency of employers to ignore the curriculum from which a student graduated in the determination of starting pay, and the increasing need for post-secondary skill training to perform even entry-level tasks. The aggregate nature of the data has also been emphasized, and a stratification of pay rates by size of city did reveal expected differences.

Given, this conclusion -- namely, that there does not appear to be significant differences in dollar earnings between the graduates of the vocational and academic curricula -- are there other pay-offs?

Some evidence is available based on the subjective responses of the graduates from the respective curricula to questions concerning their preparation in the use of equipment, prior acquisition of necessary skills for application on the first job held, and the extent of their satisfaction with the jobs obtained. The graduates of the vocational curriculum rated their preparation higher than did their non-vocationally trained counterparts. All groups tended to rate their satisfaction on the job equally, except that the vocational graduates appeared to receive greater job opportunities.

The important problem of how much an individual employer can be expected to invest in the training of entry level employees, in light of high levels of occupational mobility, remains unanswered. A fruitful area for future analysis would be a benefit-cost evaluation of on-the-job training in various types of jobs and in various sectors of the economy. The perspectives of the employer, the employee, and society would all have to be taken into consideration. Such suggestions as tax credits for expenses incurred by employers in the training of new employees could be evaluated much more rationally on the basis of this kind of analysis.

General Conclusion

The general conclusion of this chapter is that graduates from a vocational curriculum think they were better prepared to handle required job tasks and that their schools made more of an effort to prepare them to get a job. These graduates wanted quite different types of jobs, in general, from those desired by their non-vocational counterparts. These differences were attenuated in the actual types of jobs obtained. In light of the original intent of this analysis -- to assess the relative adequacy of job preparation -- the vocational graduate can be considered to have received better preparation for entrance into the labor force than did the others. One major question remains, however. Do employers think the vocational graduate is more desirable as an employee? This question will be answered in Chapter 7.

CHAPTER 7

THE IMAGE OF VOCATIONAL EDUCATION AS VIEWED BY TEACHERS, EMPLOYERS, AND UNIONS

One of the most fundamental, but most often neglected, findings of modern social science is that people do not respond to reality but to their perception of reality. The reason that this finding is so often neglected may lie in the natural tendency of each person to believe what he sees is the "real" reality. If other people do not see things the same way, it is very natural to assume that others' perceptions are distorted, not one's own. When the object in question is the ever changing complex of students, teachers, courses, shops, and equipment that is labeled "vocational education" it is understandable that different observers see different things and draw different conclusions about it.

It is commonly said that vocational education has an "image problem." The implication of this statement is negative. Vocational education, it is implied, is being seen as second-class education. An additional implication of this phrase is that, while vocational education is perceived in this negative light, it is in reality successful and useful. Educators who reach this conclusion believe that if observers were more fully informed about vocational education its "image" would be more positive and there would be no "problem."

In this chapter the attitudes toward vocational education of three populations, each of whom has considerable influence on it, are discussed. These populations are teachers, employers, and union officials. Their attitudes were assessed and analyzed by various classification variables to determine if differing degrees of exposure to vocational education were associated with differing attitudes towards it. The teachers' attitudes were measured by a standardized attitude questionnaire. Their scores and item responses were compared by courses taught and by the types of schools in which they taught. Employers were both interviewed and asked to complete the same questionnaire as the teachers. Various cross-analyses of attitudes scores and interview reports of behavior were conducted to attempt to relate attitude differences to differences in hiring practices and participation in vocational education programs. Many of the same interview questions asked of employers were directed to union officials to determine if a different perspective was associated with different answers.

This chapter presents the analysis of each population separately: Section I: The Teachers' Perspective; Section II: The Employers' Perspective; Section III: The Union Perspective. The final section includes a brief summary of the chapter and concludes that the degree of active involvement in vocational education appears to be the best explanation of degree of favorability toward it. Those who were most actively involved, both teachers and employers, were the most favorable, suggesting that the phrase "image problem" may be a valid description of the situation.

SECTION I: THE TEACHERS' PERSPECTIVE

One purpose of the study was to determine the image of vocational education in the high school as indicated by high school teachers, including those who teach in exclusively academic high schools (no vocational offerings), those who teach in vocational high schools, and those who teach in comprehensive high schools (i.e., high schools offering both academic and vocational curricula). It was of further interest to compare those teachers who teach academic subjects, regardless of the kind of high school in which they teach them, to those who teach non-academic subjects (vocational -- including home economics, business education, and industrial arts). Attitudes towards college preparatory courses were also measured to be used as a touchstone in evaluating attitudes towards vocational education.

Data were obtained on three attitude scales: (1) a Likert scale which measures attitudes toward vocational education in the high school; (2) a semantic differential which measures attitudes toward vocational education in the high school; (3) a semantic differential which measures attitudes toward college preparatory education in the high school. The scales used were developed by Wenrich and Crowley.[1] The questionnaires were placed in the mailboxes of teachers in the high schools of the nine cooperating cities, and were collected later or on the same day by a member of the visiting team. The completion rate exceeded 90 per cent.

The first attitude scale was concerned with the measurement of attitudes toward vocational education in the high school (see Appendix D) and involved the use of a Likert scale. The Likert scale is constituted by a series of statements indicating both favorability and disfavorability toward a particular attitude object, in this case, vocational education. Individuals react to each and every item by selecting one of five alternatives: strongly agree, agree, undecided, disagree, and strongly disagree, thus indicating their extent of agreement of disagreement with each of the items. Specific item analyses will be discussed later. Initially, some general findings obtained on this Likert scale will be described.

Comparisons between all teachers in exclusively vocational high schools and all teachers in exclusively academic high schools appear in Table 7.1. Seventy-two per cent of the teachers in the former group indicated a high degree of favorability, on the Likert scale, toward vocational education. Only 39 per cent, less than half as many, of the teachers in the academic high schools indicated such a high degree of favorability toward vocational education. The majority of academic high school teachers, 52 per cent, displayed attitudes toward vocational education in the high school that were relatively neutral. The differences between the two groups was highly significant on the basis of a chi-square test. One can conclude from these data, based on a

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[1] Wenrich, R.C., and Crowley, R.J., Vocational Education Perceived by Different Segments of the Population. Ann Arbor: University of Michigan, 1964.

TABLE 7.1

Attitudes Toward Vocational Education in the High Schools as Indicated on a Likert Scale

	Favorable	Relatively Neutral	Unfavorable	N
	%	%	%	
Vocational High School Teachers	72	26	2	476
Academic High School Teachers	39	52	9	792

$X^2 = 138.4$
$p < .001$

Vocational High School Teachers - teachers in exclusively vocational high schools

Academic High School Teachers - teachers in exclusively academic high schools

rather sizable sample (476 vocational high school teachers, 792 academic high school teachers), that the attitudes of academic high school teachers toward vocational education were less than might be desired, especially when compared to vocational high school teachers who represented a high degree of favorability toward vocational education.

It should be kept in mind that the vocational high school teachers group included those teaching academic subjects in the vocational high school as well as those teaching vocational subjects, while the academic high school teachers group included those teaching non-academic subjects in the academic high school (i.e., industrial arts, home economics, business education) as well as those teaching academic subjects. When a comparison is made between vocational teachers in vocational high schools and academic teachers in academic high schools these differences in attitudes become stronger. This point is discussed below.

The second attitude measuring device is called a semantic differential. It represents a series of adjective pairs (polar opposites) spread along a continuum with seven points in-between; the favorable pole of the adjective is at one end of the continuum and the unfavorable pole at the other end. The individual rates the attitude object, in this case vocational education in the high school, by placing an "X" somewhere along the continuum.

As Table 7.2 shows, teachers in exclusively vocational high schools were quite favorably inclined toward vocational education, a not too surprising finding. A total of 80 per cent of these teachers showed extreme favorability toward the attitude object. Among teachers in exclusively academic high schools, 61 per cent showed extreme favorability toward vocational education on this measuring instrument. While the difference between the two groups was quite significant, the academic high school teachers showed considerably greater favorability toward vocational education on this semantic differential than they did on the Likert scale described on page 7 - 2 (61 per cent against 39 per cent). Perhaps this was a function of the differen-

TABLE 7.2

Attitudes Toward Vocational Education in the High Schools as Indicated on a Semantic Differential

	Favorable	Relatively Neutral	Unfavorable	N
	%	%	%	
Vocational High School Teachers	80	18	2	401
Academic High School Teachers	61	35	4	778

$X^2 = 42.0$
$p < .001$

tial sensitivity of the two instruments.

In order to gain some insights into the basis of the attitudes of the two groups in reacting to the semantic differential, the adjective pairs were examined individually. The greatest endorsement of vocational education by academic high school teachers (i.e., endorsement by 90 per cent or more) occurred on the following pairs:

worthy - unworthy
desirable - undesirable
essential - unessential
important - unimportant
helpful - harmful
valuable - worthless

The positive word here is always on the left. In the actual scale the positive words were on both left and right. These items seem to represent the "principle" of vocational education, i.e., academic high school teachers agreed with vocational education in principle.

The following adjective pairs represent those on which the greatest difference between the two groups was obtained with vocational high school teachers always scoring more favorably. The unfavorable pole chosen by the academic high school teachers is on the right and the per cent difference between the two groups appears in parentheses.

successful - unsuccessful (13% difference)
definite - indefinite (11% difference)
secure (future) - insecure (10% difference)
respectable - disreputable (9% difference)

These items seem to represent the "practical operation" of vocational education. Thus, academic high school teachers supported vocational education in principle but limited their support when it came to the operation or carrying out of vocational education.

The semantic differential was also used to measure the attitudes of the two groups toward college preparatory education in the high school. The results on this scale appear in Table 7.3. It can be seen that 78 per cent of academic high school teachers and 72 per cent of vocational high school teachers were quite favorably inclined toward college preparatory education. While the difference was significant (the contingency table had to be collapsed into a 2x2 in order to have large enough cell frequencies to do a chi-square analysis), the difference was so small as to be trivial. Thus, one can conclude that both groups strongly endorse college preparatory education.

TABLE 7.3

Attitudes Toward College Preparatory Education in the High Schools as Indicated on a Semantic Differential

	Favorable	Relatively Neutral	Unfavorable	N
	%	%	%	
Vocational High School Teachers	72	25	3	474
Academic High School Teachers	78	21	1	772

$X^2 = 5.4$
$p < .05$

Because of the large differences between vocational high school teachers and academic high school teachers on the Likert scale measure of attitudes toward vocational education in the high school, these data were reexamined by separating the two groups into the following six groups:

Teachers of academic subjects in academic high schools
Teachers of non-academic subjects in academic high schools
Teachers of academic subjects in vocational high schools
Teachers of vocational subjects in vocational high schools
Teachers of academic subjects in comprehensive high schools
Teachers of non-academic subjects in comprehensive high schools

Data for the six groups appear in Table 7.4 while a ranking of the six groups in terms of favorability and an indication of statistically significant differences between groups appears in Table 7.5. The group with an attitude most favorable toward vocational education was the vocational teachers in vocational high schools (78 per cent favorable). This is to be as expected and can serve as an ideal or upper limit of favorability toward the attitude object. This group was followed by the academic teachers in vocational high school (62 per cent favorable). These two groups differed significantly, although it appears that the academic teachers in vocational high schools identify primarily with the setting in which they teach -- the vocational high school -- and only secondarily with the kind of subjects they teach -- academic. They showed significantly more favorability toward vocational education than teachers of academic subjects in the academic and comprehensive high schools. Third in the favorability ranking were non-academic teachers in comprehensive high schools (53 per cent favorable) while non-

TABLE 7.4

Attitudes Toward Vocational Education in the High School (Likert Scale) for a Six-Group Breakdown

	Favorable	Relatively Neutral	Unfavorable	N
	%	%	%	
Academic Teachers in Academic High Schools	31	59	10	425
Non-Academic Teachers in Academic High Schools	49	47	4	322
Academic Teachers in Vocational High Schools	62	37	1	161
Vocational Teachers in Vocational High Schools	78	21	1	283
Academic Teachers in Comprehensive High Schools	26	64	10	203
Non-academic Teachers in Comprehensive High Schools	53	44	3	107

academic teachers in academic high schools were fourth (49 per cent favorable). Academic teachers in academic high schools ranked fifth in favorability (31 per cent favorable) while academic teachers in comprehensive high schools ranked last in favorability (26 per cent favorable). It is interesting to observe that the academic teachers in comprehensive high schools ranked last in favorability toward vocational education particularly since vocational education is, at present, attempting to make inroads into comprehensive high schools and must "win over" teachers in these schools in order to maximize the potential of vocational offerings. So far this group does not appear to have been "won over."

Because the 28 Likert scale items were content items, an attempt was made to look at the responses of the six groups on individual items in order to develop a capsule picture of the basis and details of their attitudes toward vocational education. Since the scale was originally item analyzed by Wenrich and Crowley[2] in order to increase inter-item homogeneity and maximize correlations between each item and the total pool of items, it was anticipated that the item spreads would be relatively small. What is offered below is a summary statement of the kinds of responses which highlight and typify each of the six groups. Each statement is based on responses to the Likert items which seem to differentiate the group from the rest of the groups.

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[2] Ibid.

TABLE 7.5

Rank Ordering of the Six Groups on Attitudes Toward Vocational Education and Results of Statistical Comparisons

Ranking in Favorability From Most to Least	
(1) Vocational Teachers in Vocational High Schools	
(2) Academic Teachers in Vocational High Schools	ns
(3) Non-academic Teachers in Comprehensive High Schools	ns
(4) Non-academic Teachers in Academic High Schools	
(5) Academic Teachers in Academic High Schools	ns
(6) Academic Teachers in Comprehensive High Schools	

Rank of Group

		1	2	3	4	5	6
	1	-	*	*	*	*	*
	2		-	ns	*	*	*
Rank	3			-	ns	*	*
of	4				-	*	*
Group	5					-	ns
	6						-

* Significant difference at .05 level or less
ns Not a significant difference

Academic Teachers in Academic High Schools

This group seemed relatively neutral in attitudes toward vocational education in the high school. They favored a sound basic education (as opposed to a vocational one), were not impressed by vocational graduates, felt that these students lacked scholastic skills, did not feel that vocational programs attract industry to communities and did not feel that vocational programs should be taken earlier in one's life. Other areas of support were moderate. They did feel that the values of vocational education should be made more known to parents, that the community should provide such programs for non-college bound youth, and that these programs should be offered in the high school. However, they did not feel that a greater proportion of the high school curriculum should be devoted to it.

Academic Teachers in Comprehensive High Schools

This was clearly the group that perceived itself as being most threatened by vocational education as it makes inroads into the high schools. They were especially sensitive about sharing funds with vocational education. They were least inclined to think that vocational education justifies its cost, and, therefore, did not favor giving a bigger portion of the budget to it. They favored basic education, were not impressed by vocational students, felt that there are enough students enrolled in vocational programs, felt that vocational students lack scholastic skills, felt that enough of the curriculum is already devoted to vocational education, and felt that vocational education begins early enough (perhaps too early). They showed support for those items which did not threaten them. The academic teachers in the comprehensive high schools represented the greatest opposition to vocational education.

Academic Teachers in Vocational High Schools

This group clearly lined up with vocational teachers in vocational high schools and showed similar directionality on most items but were slightly less positive. The inference can be drawn that they saw themselves first as teachers in vocational high schools and only secondarily as academic teachers. Their livelihood depended on how vocational high schools fare. Their only negative feeling was that vocational students lacked adequate scholastic skills. They also had some misgivings about a greater proportion of the high school curriculum being devoted to vocational education. Both objections bear on their domain.

Vocational Teachers in Vocational High Schools

As expected, this group showed extreme favorability toward vocational education in the high school. The only places where their favorability was less than extreme was in a moderate rejection of the statement that vocational students lacked scholastic skills and in a general rejection of the notion that vocational education should begin earlier. On the most general statements of endorsement of vocational education, they selected the most positive responses at 96 per cent and above.

Non-Academic Teachers in Academic High Schools

This group showed a greater general endorsement of vocational education than academic teachers in academic and comprehensive high schools and less support than teachers in vocational high schools. Their overall favorability ran about 50 per cent. Their pattern of responses was highly consistent. They were about midway between the academic teachers in the academic high school and the vocational teachers in the vocational high school on almost every question. They deviated from this pattern in that they more strongly rejected the notion that vocational education should begin earlier than did the academic teachers. Apparently the sympathies of this group were split between the academic communities in which they resided and the vocational areas which they represented (business education, home economics, industrial arts).

Non-Academic Teachers in Comprehensive High Schools

This group was something of an enigma. Their overall attitude toward vocational education was comparable in favorability to that of the non-academic teachers in the academic high school, although the former were more directly involved in a greater variety of vocational offerings. One would have expected their attitudes to have been at least as favorable as academic teachers in vocational high schools but they were not. They were at the 50-50 level of favorability. Perhaps they felt their services were required to provide support for academic programs through elective offerings, such as industrial arts. Perhaps the teachers of business education, home economics, and industrial arts, traditionally found in the high school, were somewhat threatened by the newcomers in trade and industrial, agriculture, and distributive education. It would be interesting to separate the groups.[3] While this group strongly endorsed vocational education as an alternative to basic education, they were quite unimpressed by the graduates of vocational programs. They also did not feel strongly about setting money aside in the school budget for vocational education. They saw vocational students as lacking scholastic skills and were less in favor of encouraging vocational education among students than were academic teachers in academic high schools. They opposed devoting a greater portion of the curriculum to vocational education and strongly rejected the notion that vocational education should begin earlier.

In summary it can be said that the teachers viewed all education as good, but some types as better than others. The degree to which they supported vocational education could be fairly accurately predicted from a knowledge of the courses and the type of school in which they taught. Naturally enough, teachers of vocational subjects in vocational schools were most positive. Somewhat surprisingly, teachers of academic subjects in vocational schools were the next most favorable while academic teachers in comprehensive high schools were the least favorable, being slightly lower than academic teachers in academic high schools. Many possible explanations suggest themselves: the higher quality vocational student in the separate school, the greater understanding of vocational education resulting from working in a vocational school, or the self-selection of teachers resulting in those more favorable towards vocational education accepting positions in vocational schools. Each of these could explain the differences, and elements of each probably have influenced the relationship. Regardless of its explanation, though, the relationship showed the importance of the positions the respondents held to their attitudes. Since most people like to think they do a good job in their work, it would be very difficult for respondents who were teaching in vocational schools to have held, simultaneously, the attitude that they were doing a worthwhile job, but that vocational education was, in general, not very useful. The academic teachers not in vocational schools favored the principle of vocational education but were skeptical of its practical operation.

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[3] Additional data comparing teachers of different subjects on the Likert scale, independent of the type of high school in which they taught, showed that 52 per cent of the teachers of business and clerical courses and 54 per cent of the teachers of home management courses favored vocational education as compared to 77 per cent of the teachers of shop courses and 36 per cent of the teachers of academic courses. Thus, business education and home economics teachers do seem only lukewarm toward the "newcomers."

SECTION II: THE EMPLOYERS' PERSPECTIVE

Some of the very real and complex problems to be faced in implementing new programs of vocational education and improving existing ones require cooperation and participation of groups outside of the school system. Probably the most important tie to be established is that between the school and the employer for, occupying the positions that they do relative to each other and to the high school student, it can only be mutually beneficial to develop a high degree of cooperation and participation. The area most obviously requiring joint action is that of curriculum planning. Employers could also be extremely helpful in the quest for teachers and equipment and in keeping both of these reasonably current in terms of technological change.

Having already examined the attitudes and experiences of teachers it is logical to inquire into employer attitudes. What is the employer's concept of vocational education? How has he been exposed to it? What are some of the factors that have influenced his attitudes? What strengths and weaknesses in vocational education programs can be learned by studying these attitudes? Answers to these questions would provide helpful clues in devising ways of increasing employer cooperation and participation.

Method of Analysis

Personal interviews with a structured schedule were conducted with 658 employers in nine cities. After the interviews were completed, three-page attitude questionnaires were left with the respondents for them to complete and mail to The Pennsylvania State University.

Of the 658 employers who were interviewed, approximately 340 returned the questionnaires with all or most of the attitude scales completed. This provided attitudinal data for 52 per cent of the sample of employers interviewed. The responses in the personal interviews of those employers who returned the attitude scales were compared to the responses of those who did not. Few differences of meaningful magnitude were found. Therefore, for the analyses which concern attitudes toward vocational education, the 52 per cent sample seems to be representative of the larger sample of interviewed employers.

This section contains a detailed analysis of employer attitude scores (encompassing a comparison with the teacher attitudes measured on the same instruments), followed by a discussion of the results of the interviews.

Two types of analysis were utilized with the employer data. The first of these was an attitudinal analysis, using the above-mentioned attitude questionnaire as the measuring instrument. This is the questionnaire developed by Wenrich and Crowley[4], which has been previously described. It consists of five separate attitude measures: a Likert scale measuring attitudes toward vocational education; a semantic differential, also measuring attitudes toward vocational education; and a semantic differential measuring attitudes toward college preparatory education. In addition, there were two "summary-attitude" items, of a semantic differential format, on which the respondent was asked to rate his overall attitude toward vocational education or college preparatory education on a seven-point scale ranging from "very favorable" to "very unfavorable."

The Likert and semantic differential scales were constructed so that higher scores indicated more positive attitudes with a maximum score of 140. The summary items each had a maximum score of seven, with a score of one indicating an extremely unfavorable attitude and a score of seven indicating extreme favorability.

In the attitudinal analysis, the employers' general attitudes toward vocational and college preparatory education were studied. The attitudes of the employers were then compared to those of the teachers, as previously analyzed. The employers' attitude scores were also compared with their responses to certain of the interview questions, to ascertain what relationships existed between measured attitudes and self-reported behavior patterns. Discussions of these attitude-interview comparisons are interspersed among the second set of analyses which cover the interview responses themselves.

The analysis of the interview responses consisted of tabulating the responses to each question and cross-tabulating many whose relationships were of interest. Some of the more visible characteristics of an organization such as size of firm, size of city, percentage of non-white employees, industrial classification, and presence of labor unions were compared to attitude scores. Of these classifications only the percentage of non-white employees was related to attitudinal differences. These differences, which showed employers of non-whites to have less positive attitudes, are discussed in more detail below. In most cases, however, it was not possible to detect a pattern of differences associated with the variables listed above.

Employer and Teacher Attitudes Compared

As can be seen in Table 7.6, all of the multiple-item scales had mean scores over 100, which seems to indicate a favorable attitude. However, the relative levels varied among the different types of scales. In all analyses concerning attitudes, the major interest was in the differences between the vocational education scales and the college preparatory scales. However, the means and standard deviations in Table 7.6 indicate that the differences between types of scales were greater than those between the attitudinal objects themselves. That is, the scores on the vocational education semantic differential were more comparable to the scores on the college preparatory semantic differential than they were to those on the Likert vocational education scale. A correlation analysis of the scale scores substantiated this finding. The correlation between the same types of measures of different attitude was sometimes higher than the correlations of measures of the same attitude which were made using different techniques. This factor, the differential sensitivity of the types of measuring instruments, has already been discussed in the analysis of teacher attitudes.

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[4] Wenrich and Crowley, op.cit.

A direct comparison between the mean attitude scores of employers and teachers can be found in Table 7.6. No real differences were found between the groups in their attitudes toward college preparatory education. (The college preparatory summary item did show a statistically significant difference, but the magnitude of this difference transmitted little meaning.) However, on all of the vocational education scales, the employer sample had lower mean scores than did the teacher sample. This perhaps would be expected because of the teachers' involvement in education. The general similarity of the attitudes in the two groups outweighed the minor, albeit statistically significant, differences between them.

Internal Analyses of Employer Attitudes

Table 7.7 presents an item tabulation of the semantic differential scales for the employer sample. The high percentages of responses in the "favorable" column only serve to emphasize the general level of support the concept of education, as a whole, receives in our culture. The distribution of highly favorable responses appeared to favor college preparatory education (mean = 91.9 per cent) over vocational education (mean = 86.1 per cent), a finding which agrees with the analysis of mean attitude scores. However, these differences were not really large enough to carry much meaning. The areas of major difference showed up in the "percentage difference" column, where vocational education appeared to receive much less support than college preparatory education in the areas of attractiveness, respectability, effectiveness, and success. The only area in which vocational education received more support than college preparatory was on the item "interesting-boring", but the percentage difference here was too small to lead to any definite conclusions.

It was expected that two of the questions which appeared in the employer interviews would show direct relationships to the attitude scales. The first of these was the question, "Do you think that vocational education students have less, the same, or more all-around ability than students in other courses?" One would expect employers who felt that vocational students have less ability to display lower attitudes toward vocational education than employers who felt that vocational students were the same or better. In addition, the attitude scores concerning college preparatory education would be expected to vary inversely with the respondents' evaluations of vocational vs. academic students. The actual patterns of responses which appeared in the data, shown in Table 7.8, provided some support for these expectations. On both of the major vocational education scales, the respondents in the "less ability" category returned significantly lower mean attitude scores. The differences on the other three scales were not statistically significant, but in each case they were in the expected direction.

The second question was, "How well do you think the high schools are preparing young people for employment?" Here, one would logically expect the attitude scores to decrease successively as the response categories are listed in order from "very good preparation" to "very poor preparation." The results of this analysis appear in Table 7.9.

TABLE 7.6

Comparison of Teacher and Employer Attitudes

	Mean Attitude Scores										
	Vocational Education Likert		Vocational Education SD		College Preparatory SD		Vocational Education Summary		College Preparatory Summary		N
	Mean	σ	Mean	σ	Mean	σ	Mean	σ	Mean	σ	
Employer Sample	104.9	16.4	111.4	26.6	117.4	20.1	5.1	2.4	6.3	1.1	338
Teacher Sample	107.6	17.1	115.2	34.4	117.7	31.6	5.5	1.7	6.1	1.3	1601
t - Values	2.82		2.23		0.21		3.12		2.77		
p	<.005		<.025		NS		<.005		<.005		

TABLE 7.7

Per Cent Favorable and Unfavorable Responses
On Each Semantic Differential Adjective Pair

	Vocational Education		College Preparatory		Percentage Difference in Proportions of Favorable Responses
	Favorable	Unfavorable	Favorable	Unfavorable	
	%	%	%	%	%
1. Worthy	96.0	2.5	96.9	1.5	0.9
2. Successful	72.5	21.7	89.2	6.5	16.7
3. Interesting	88.0	3.4	84.3	6.5	-3.7*
4. Satisfactory	80.6	14.2	89.2	4.9	8.6
5. Rewarding	84.7	10.1	94.5	3.7	9.8
6. Practical	88.4	5.8	89.5	5.3	1.1
7. Desirable	92.7	4.9	99.1	0.0	6.4
8. Essential	93.0	2.8	94.8	2.8	1.8
9. Effective	80.4	13.8	92.8	3.4	12.4
10. Important	94.8	3.7	96.6	1.8	1.8
11. Helpful	95.4	0.9	96.6	1.2	1.2
12. Valuable	96.0	1.5	96.9	0.6	0.9
13. Meaningful	92.6	4.0	94.5	2.5	1.9
14. Realistic	83.9	10.5	86.2	10.8	2.3
15. Definite	72.1	12.4	80.6	10.2	8.5
16. Attractive	73.3	15.7	91.1	2.8	17.8
17. Profitable	87.1	4.6	92.3	2.2	5.2
18. Purposeful	88.7	5.2	95.0	2.5	6.3
19. Secure	79.1	10.2	85.5	5.6	6.4
20. Respectable	83.1	9.2	94.2	2.5	11.1
Mean	86.1	7.9	91.9	3.9	6.2

* On this item, vocational education received a higher percentage of favorable responses than college preparatory education.

TABLE 7.8

Do Vocational Students Have Less, the Same, or More Ability?

	Mean Attitude Scores						
	Vocational Education Likert	Vocational Education SD	College Preparatory SD	Vocational Education Summary	College Preparatory Summary	N	%
Less	101.1	105.8	117.6	4.8	6.4	95	29.3
Same	106.1	115.2	119.2	5.5	6.4	123	37.9
More	108.8	115.3	113.6	5.1	6.2	59	18.2
Don't Know	106.2	109.0	115.4	4.9	6.1	47	14.5
F-Ratio	3.36	2.78	1.16	1.42	1.14	324	99.9
P	<.05	<.05	NS	NS	NS		

Duncan's Multiple Range Test:

Scale	Differences	
Vocational Education - Likert	Less < More Less < Same	p < .01 p < .05
Vocational Education - SD	Less < More Less < More	p < .05 p < .05

TABLE 7.9

How Well Do the High Schools Prepare? (Combined Categories)

	Mean Attitude Scores						
	Vocational Education Likert	Vocational Education SD	College Preparatory SD	Vocational Education Summary	College Preparatory Summary	N	%
Good and Very Good	106.2	114.2	120.9	5.2	6.5	135	41.8
Adequate and Less Than	103.8	108.0	115.9	4.9	6.2	135	41.8
Poor and Very Poor	108.3	111.8	113.1	5.8	6.3	33	10.2
Don't Know	106.8	107.4	112.6	4.6	5.6	20	6.2
F - Ratio	1.15	2.51	2.87	1.54	4.18	323	100.0
p	NS	<.10	<.05	NS	<.01		

Duncan's Multiple Range Test

Scale	Differences	
Vocational Education - SD	Adequate and Less < Good and Very Good	p < .05
College Preparatory - SD	Adequate and Less < Good and Very Good	p < .05
	Poor and Very < Good and Very Good	p < .05
College Preparatory - Summary	Don't Know < Good and Very Good	p < .01
	Don't know < Adequate and Less	p < .05
	Don't Know < Poor and Very Poor	p < .05

For the college preparatory semantic differential, the mean scores decreased in the manner which was expected. However, on all of the other scales there was a tendency for the employers responding in the "poor-very poor" category to have higher attitude scores. Speculating over the possible reasons for this result, three factors appear, each of which may have influenced the responses. In the first place, there exists in our country a cultural value in which education, as a whole, is viewed as a good thing. This would tend to keep attitudes toward the idea of vocational and college preparatory education at a high level, regardless of one's feelings about the adequacy of the actual workings of educational programs. In this manner, the question about high school preparation might have been interpreted differently from the attitude scales, themselves; i.e., separate attitudinal objects were involved. Along this same line, it should be noted that the scales covered attitudes toward only two types of educational programs; other curricula were not included, although they undoubtedly contributed to the variance found in the responses to the preparation question. Finally, the number of cases in the "poor-very poor" categories was smaller than the others and these respondents may not have been as representative of the true population in this category.

A concrete finding which came out of this analysis was that only 64 per cent of the respondents felt that the schools were doing an adequate (or better) job of preparing youngsters for employment. (The combined adequate and less than adequate category divides: adequate = 21.7 per cent, less than adequate = 20.4 per cent.) Since the sample of employers represented the people who were in one of the best positions to evaluate the schools in this respect, this finding was of considerable importance in considering the image of vocational education programs on the high school level.

The attitude scores and the responses to the adequacy of preparation question were also analyzed by the percentage of non-whites employed by the company. Employers who did not have any non-white employees were more positive in their evaluation of the schools' performance. For example, 31 per cent of these employers felt that the schools were doing a very good job; in contrast, only 19 per cent of employers who had non-whites in their organization gave a "very good" rating to the school. At the other extreme, 14 per cent of those without non-white employees responded that the schools were doing a poor or very poor job; 26 per cent of those who had non-whites gave the same responses. The attitude scale scores gave similar results. On four of the five scales the employers without non-white employees had significantly higher mean scores. Only for the college preparatory summary item were the means not different.

The more negative attitudes among those with non-whites in their employ probably have resulted from hiring workers who have received an inferior education. But since non-whites traditionally receive lower pay than whites, the more basic explanation may lie in the labor market of the employers. That is, employers who hire non-whites may be paying lower wages and, in general, hiring workers of less ability.

Patterns of Personnel Procurement

In an attempt to discover some basic employer attitudes regarding the hiring of young people, the respondents were asked to list the jobs for which they hired young high school graduates, and what were the reasons for usually hiring young people for those jobs. Seventy-five per cent responded with reasons why they preferred young people. This 75 per cent was broken down into two groups: those having reasons relating to the young person and/or the particular job, and those having reasons relating to characteristics of the labor market for young people, i.e., reasons why they are easier to hire than older people on terms favorable to the employer. These labor market reasons were given about half as often as reasons related to the person or the job.

A directly related question was then asked: "Do you hire young people who have not completed high school for any of these jobs?" Fifty-nine per cent answered "yes" to this question, and another 16 per cent indicated that while they did not hire non-graduates for these particular jobs, neither did they employ graduates exclusively for all jobs. Thus, 25 per cent of the employers interviewed did not hire young people without a diploma. However, 50 per cent of the organizations in the fields of finance, public administration, and public utilities did not hire non-graduates. If these predominantly white collar industries (which constituted one-sixth of the sample) are eliminated from consideration, over 80 per cent of the remaining firms do in fact hire non-graduates.

Altogether the 658 respondents listed a total of 2,650 jobs for which they hired young people. Initially, these were broken down into several hundred different job titles. However, for purposes of analysis they were grouped into four main classifications:

Group I	Professional and managerial occupations
Group II	Clerical and sales occupations
Group III	Service occupations
Group IV	Specific and nonspecific skills

This breakdown was necessary because, in most instances, answers were more meaningful when applied to a particular kind of job. In the following discussion, this breakdown is used where it is helpful.

When job opportunities were tabulated by sex, as shown in Table 7.10, there was a fairly even distribution between the sexes, considering the jobs as a whole. Splitting the jobs into the four categories, however, revealed a marked favoring of women in clerical and sales operations (Group II) and the reverse in the other three groups.

Bearing in mind that 75 per cent of the respondents indicated that they did hire non-graduates, it is interesting to note that for only 37 per cent of all the jobs for which they hire young people do they ever hire non-graduates. This latter measure is a more effective index of job opportunity.

Since for two-thirds of the jobs a high school diploma was a hiring criterion, which courses do employers think offer the best background for their particular jobs? From the total of 2,650 jobs for which the employers hired young people, for 1,788, or 69 per cent, of these jobs, the respondents were able to cite at least one type of high school course which they felt was important as preparation for the job in question. Of these 1,788, 1,087 (61 per cent) revealed a second choice in addition to their first.

At this point it is necessary to consider a basic characteristic of the sample, that is, 53 per cent of all the jobs fall into Group II -- clerical and sales positions. Therefore, it is reasonable that 61 per cent of the courses chosen "first" were chosen as preparation for Group II jobs.

TABLE 7.10

Sex and Diploma Requirement by Category of Job

	Category of Job				
	I	II	III	IV	Total
	Professional-Managerial	Clerical-Sales	Service	Skills	
Sex Hired	%	%	%	%	%
Male	50	16	61	66	37
Female	8	50	18	13	34
Both	42	34	21	21	29
Diploma Required	77	82	28	41	63
Number	121	1394	484	525	2536

Bearing in mind the skewness that this lends to the distribution of courses chosen, it follows that 49 per cent of the "first" choices and 47 per cent of the "second" were for business courses.

As can be seen in Table 7.10, groups III and IV revealed appreciably lower requirements for a high school diploma than did the others. This was to be expected and would help to explain why, even though these groups constituted 38 per cent of all the jobs, they accounted for only 28 per cent of the first choices.

A fairly consistent pattern was noted with respect to responses favoring academic courses, both for first and second choices. This pattern is reasonable since Group I was represented heavily, with 65 per cent of the first choices and 66 per cent of the second. Although the other three groups favored courses with direct job relationships, between 25 per cent and 45 per cent of their first and second choices were for courses of an academic nature. If realization on the part of the employer of the need for a broad educational background is to be considered one of a series of steps in getting him to assume more of a training responsibility, these results are encouraging.

The respondents thus showed that they considered high school courses important for the majority of the jobs for which they hire young people. Having established some pattern of preference among these courses, there was a natural interest in the degree of satisfaction experienced by the respondents as to the preparedness rendered by these courses. For 54 per cent of the jobs the answer was "good" or "very good", with answers of "adequate" for another 29 per cent. This seems like a fairly high degree of satisfaction, but it must be noted that respondents were evaluating courses that they themselves cited as being important. The obvious inference here, as with much of the data, is that employers accorded an important training function to the high schools, but feel that the training could be performed better.

The final question asked in relation to specific jobs was concerned with training offered by employers. The respondents indicated that for 24 per cent of the jobs no training was offered, and for another 65 per cent training was restricted to the on-the-job variety. This leaves a remainder of only 11 per cent of jobs for which formal training programs were conducted. The sample interviewed was probably more cooperative and progressive than the average employer, but even these employers were giving very little training that was not specifically job oriented. Unless there is a sizeable reorientation on the part of employers, young people must plan on obtaining generalized skill training away from their places of employment. The formal training institution, both secondary and post-secondary, likewise must accept the responsibility for this training. The fact that a greater portion of this responsibility has not been shouldered by employers seems to be one of the key indicators of their lack of understanding of the problems and goals of vocational education.

Hypothetical Hiring Situations

Included in the interviews were several questions concerning hypothetical hiring situations. In each situation, limited descriptions of two job applicants were given to the employer and he was asked to make a hiring decision based on these descriptions. Each hypothetical hiring situation was designed to isolate one specific characteristic of a job applicant that could be the deciding factor that would influence his chances of being hired. Two of the hypothetical hiring situations that are examined isolated the variable of whether the young job applicant has had vocational or college preparatory training in high school. In the first situation, the employer was asked to choose between John, who took a college preparatory course but decided not to go on to college, and Tom, who took a vocational course. Otherwise both young men were considered to be the same, both being recent high school graduates. They were applying for a clerical job. The second hypothetical hiring situation was identical, except that both young men were applying for a maintenance job.

There are three logical decisions which the employer might make in these situations: (1) he could hire the college preparatory student for the clerical job (situation 1) and the vocational student for the maintenance job (situation 2); (2) he could hire the college preparatory student in both situations, thereby indicating a preference for college preparatory courses; or (3) he could hire the vocational student in both situations, thereby indicating a preference for vocational courses.

It was expected that Decision 1 would be made in most cases, since it would appear logical to most people. Since the overall mean attitude scores showed a slight preference for college preparatory education, it was expected that more of the remaining employers would make Decision 2 than Decision 3. In addition, it was expected that those with the higher scores on the vocational education attitude scales would make Decision 3, those with medium scores would make Decision 1, and those with the lower scores would make Decision 2. This ranking according to expectations is also possible with the results of the college preparatory attitude scales. Here, the rankings would be reversed, and it was expected that those with the higher scores would make Decision 2, with Decisions 1 and 3 following in that order.

The results of the analysis are reported in Table 7.11. In general, the above expectations tended to be supported by the data. Concerning the frequencies of the decisions, 77 per cent of the sample made Decision 1, the logical choice, 14 per cent made Decision 3, preference for vocational

TABLE 7.11

Hypothetical Hiring Situation - Clerical and Maintenance

Decision	Situation 1	Situation 2	Vocational Education Likert	Vocational Education SD	Preparatory SD	Vocational Education Summary	College Preparatory Summary	Number	%
1	College Preparatory	Vocational Education	105.7	111.3	118.5	5.1	6.3	247	77.4
2	College Preparatory	College Preparatory	99.0	102.7	112.6	5.2	6.1	23	7.2
3	Vocational Education	Vocational Education	106.7	112.7	113.2	5.4	6.4	46	14.4
	F-Ratio		2.35	2.21	2.20	0.28	0.58	319	100.0
	P		<.10	NS	NS	NS	NS		

courses, and 7 per cent made Decision 2, preference for college preparatory courses. (Three of the employers chose the vocational student for the clerical job and the college preparatory student for the maintenance job, but since this decision is so illogical and since it represents less than one per cent of our sample, it is omitted from this analysis.) As was expected, the vast majority of the sample chose Decision 1. However, the results for Decisions 2 and 3 were the reverse of expectations. Twice as many employers revealed preferences for vocational education, as compared to those preferring college preparatory education.

The ranking of the decisions according to scores on the vocational education attitude scales was weakly supported. As can be seen in Table 7.11, all of their mean scores were in the predicted directions, but the obtained differences were small and an analysis of variance did not demonstrate any statistical significance. However, the Duncan's test did show the differences on the Likert scale to be significant at the .05 level. The obtained differences on the college preparatory attitude scales were not significant, and did not conform to expectations.

In the next hypothetical case, the opening was for an office girl. The choice was between two young unmarried women--one with good references from several former employers and the other a recent commercial graduate with a good report from the high school. Over two-thirds of the respondents chose the recent graduate, not because of confidence in her training but because of an aversion to hiring the experienced girl on the grounds that she appeared to be a "job switcher." However, it should be noted that the recent graduate's training was sufficient to give her preference.

When the situation was changed so that instead of a young unmarried girl who had had several jobs, the other choice was a person of 35 years of age, also with several past employers, the results were virtually reversed with 64 per cent choosing the person of 35. By far, the predominant reason given was experience, but there was a contrast here in that there was no mention of job switching with the 35 year old applicant.

The last hypothetical situation concerned two applicants for a secretarial job. The academic graduate, with good high school grades was a poor typist, while the commercial graduate with poor grades was a good typist. Here the respondents were almost evenly divided. One reason for this may have been the lack of extraneous variables which were present in the other situations, for the choice in this instance would seem to have been made exclusively on the basis of the ability of the individual to do the job. Given two fairly undesirable choices, the respondents did not, as a group, favor one or the other. This situation does point out, though, that personal ability without adequate training is often not sufficient to make a young person employable, while on the other hand, an employable skill can at times offset some individual deficiencies.

Sources Used to Recruit New Workers

In examining recruiting policies regarding young people, knowledge of the sources used by employers in their overall recruiting program should not only indicate the relative ranking of the high school as a source of new workers, but should also yield some insight into employers' recruiting problems and how they attempt to deal with them. The respondents were asked to indicate which of the sources listed in Table 7.12 they used at all in recruiting. They were then asked which was used most and which least.

TABLE 7.12

Sources Used To Recruit New Employees

	Degree of Use					
	Used at All		Used Most		Used Least	
Source	%	Rank	%	Rank	%	Rank
Personal Contacts	90	1	26	1	12	3
Newspaper Ads ✓	76	2	22	2	20	6
Public Employment Agency	75	3	18	3	17	5
School Placement Service	66	4	11	5	16	4
Private Employment Agency	58	5	13	4	23	7
Unions	13	6	2	7	11	2
Others	7	7	9	6	2	1
Total	385*		101		101	
Number	658		602		592	

* Exceeds 100 per cent because most respondents named more than one source. The sum indicates the average respondent named almost 4(3.85) sources.

Personal contact was the most preferred, ranking first on two of the indices and third on the other. Unions were the least used. School placement service was used at times by 66 per cent of employers, but ranked low as the most frequently used source.

Almost all the sources revealed significantly higher precentages for larger companies in the "used at all" responses. This pattern, plus the absence of any significant pattern of variation with company size to the most and least used responses, suggests that large companies employ more diversified recruiting programs, but that preference for sources does not vary with company size.

Questioning on high school initiated placement contacts revealed an encouragingly high percentage of success. Although only 45 per cent of the respondents indicated that high schools had at some time tried to place workers with them, of those contacted, 88 per cent reported hiring the worker, and of those hiring, 70 per cent reported the worker as having worked out "well" or "very well," with only 5 per cent rating him as "poor." These percentages probably reflect, to some degree, a selective factor among schools. Those schools whose personnel have time to contact local employers may be making a greater effort in vocational education. It is likely the effects of this effort would be found throughout the program: better teachers, equipment, instruction, and consequently, better trained students. When these are present, school initiated contacts will receive the employers' welcome.

When the employers were asked where most of their young employees acquired the skills which they used in their jobs, the majority answered "high school" (50 per cent) or "on-the-job training" (34 per cent). It seemed reasonable to assume that employers who endorsed high school training would have a different measured attitude towards vocational education compared with employers who said their employees acquired their skills on the job. Only on one of the three attitude measures of vocational education did these groups differ significantly. On the semantic differential measure the employers who said "high school" scored 113.2, while those who said "on-the-job" scored 106.9. The test of the difference between these scores yielded a value of 2.59 which was significant, with a probability less than .01 (one-tail test). In other words, on this scale the data indicated that those employers who believed their young workers acquired their skills in high school had slightly more positive attitudes toward vocational education than those who felt on-the-job training instilled the necessary skills in their workers.

Once again, there are two possible explanations for this finding. Since the data showed only existing relationships and not causality, there is the possibility that those employers who already hold lower attitudes toward vocational education are more predisposed toward conducting on-the-job training programs, while those with more positive attitudes are more willing to depend upon the existing high school programs. An alternative interpretation would be that employers with higher attitudes toward vocational education have found that their young employees have acquired the necessary job skills in their high school programs. The employers who train their own workers, on the other hand, may do so because they have found that the schools are not doing an adequate job of training in the relevant skill areas, and their attitudes toward vocational education may be correspondingly lower because of this.

Both of these explanations generalize beyond the data, but they do point to some possible areas of strength, and weaknesses in vocational education as it is presently being carried out. At the very least, they indicate that further research will be necessary to isolate the actual causal relationships which exist in this situation.

When the question on where employees acquire their skills was analyzed by the position of the respondent (Table 7.13), a strong tendency was revealed for personnel officials to respond in favor of high schools and for top level executives to respond in favor of the training given by their companies.

TABLE 7.13

Employers Crediting Various
Agencies for Training of Employees
by Position of Respondent

	Position of Respondent			
Where Employee Trained	Top Level Executive	Line Manager	Personnel Worker	Total
	%	%	%	%
High School	34	48	61	50
On-the-Job	47	34	24	34
Previous Job	15	10	12	12
Other	4	8	3	4
Number	208	184	210	602

The inference drawn is that personnel people like to think that they recruit capable workers and that most upper level executives take pride in their companies' training programs. However, since 75 per cent of the personnel people were from companies that employed 250 or more people, the question of whether the observed relationship might have been attributed to company size was considered. To explore the relationship of company size to these responses two analyses were run. The first compared the responses by size of company; the second compared the large companies (those with most of the personnel people) by the position of the respondent. Both of these tabulations are shown in Table 7.14.

TABLE 7.14

Respondents Crediting Various
Agencies for Training of Employees
by Company Size

	Number of Employers			
Where Employee Trained	Fewer Than 50	51-250	More Than 250	Total
	%	%	%	%
High School	38	47	55	50
On-the-Job	38	35	31	34
Previous Job	14	14	9	12
Other	10	4	5	4
Number	103	290	265	658

Companies Employing 250 or More by
Position of Respondents

Where Employee Trained	Top Level Executive	Line Manager	Personnel Worker	Total
	%	%	%	%
High School	35	52	60	56
On-the-Job	48	34	25	32
Previous Job	13	3	11	9
Other	4	11	4	3
Number	31	38	161	230*

* Decreased number resulted from missing responses on position of respondent

First, it can be noted immediately from Table 7.14 that, with regard to company size, there was no appreciable variation in those choosing on-the-job training. The results in companies employing over 250 people seemed to indicate that, for this question, position of respondent was indeed the significant factor.

Employer Needs and Problems

It is one of the ironies of today's labor market that it can sometimes be as difficult for an employer to retain skilled workers as it is for unskilled workers to retain their jobs. One of the charges leveled against the hiring of young workers has been that they compound this problem by switching jobs more excessively than their older counterparts. Only 15 per cent of the respondents in this survey felt strongly that this was true, and over half, 54 per cent, did not believe it to be true at all. These percentages remained fairly constant when the question was analyzed by the various classifications, indicating a certain similarity of experience which did not vary with the respondent's vantage point.

Another purpose of this study was to obtain information with which to develop means of coping with possible skilled manpower shortages. For a reference point, the employers were asked if they were currently experiencing personnel shortages in jobs for which young people could be trained. The jobs reported were classified as to whether they were normally included, or not included, in the high school curriculum. Table 7.15 shows the first job mentioned by the employers. If the employer mentioned a second job, that was also coded, but since only 19 per cent of the employers did so, and since the distribution largely parallels that for the first job, the second responses are not shown.

TABLE 7.15

Jobs Employers Are Having the Most Difficulty in Filling

Job Classification	Normally in Curriculum	Not in Curriculum
	%	%
Professional-Technical (requiring post high school training)	-	9
Skilled Trades	16	3
Clerical and Sales	23	5
Service Occupations	2	2
Semi and Unskilled	-	9
Subtotal	41	28
No Difficulty-No Answer		31
Total		100
Number		658

Table 7.15 shows that 41 per cent of the employers indicated that their major labor problems were in occupations for which training is normally included in the high school curriculum. In these areas the schools, though offering the training, are apparently not turning out an adequate number of workers. The reasons for this may not lie with the schools. The occupations may be unattractive or poorly paid and hence do not induce enough young people to take the training necessary to enter them. For these occupations, at least, the schools are making an effort. The 28 per cent of occupations not in the normal curriculum may point to areas where additional offerings might be beneficial, especially in the skilled trades and professional occupations currently not in the curriculum. The professional-technical occupations are at the less than baccalaureate level; these are mainly engineering, medical technicians, and data processing personnel, including programmers and computer operators. The skilled trades most frequently mentioned were broadly trained repair and maintenance workers capable of repairing a wide variety of electrical and mechanical machinery.

After the employer responded to the question on jobs hardest to fill, he was asked where he thought these needed workers might come from. Almost half of the employers, 44 per cent, were unable to suggest any sources. The most frequently cited single source, at least partly because of the general orientation of the interview, was the high school. But even in the context of this interview, only 30 per cent of the respondents referred to the high schools. Those who did not say the high schools, i.e., the remaining 70 per cent, were asked if they thought the high schools could help solve their needs; 44 per cent agreed the schools could. Half of these, 22 per cent of the total sample, mentioned school connected reasons why they thought the schools were not currently meeting their employee needs. Their answers suggest they believe the schools can overcome these problems. In total, after prompting, three-fourths, 74 per cent, of the employers interviewed thought the high school could help them with their current needs.

When asked to project their current needs into a period three to five years in the future, 48 per cent of the respondents envisioned no change and only 18 per cent foresaw a need for more skilled workers. Apparently, the majority of employers do not regard the occupational education of youth as a problem of increasing proportions over time, at least as it affects them.

The general conclusion that arises from the responses to these questions is that employers are not giving much thought to their long-range or, indeed, even their current employee needs. There was a high percentage of no answers to all questions and, when prompted, the employers tended to answer in generalities and crude projections of current situations. With answers like these it seems highly unlikely that the average employer can give much effective guidance as to the direction that vocational education should take.

Employers' Contacts With and Attitudes Towards Vocational Education

The previous section has shown that employers tend to be unaware of impending educational problems that are sure to affect them. Most vocational educators are aware of this condition and constantly attempt to increase the degree of employer involvement in the educational process. The assumption among these educators seems to be that once "their story is told" greater cooperation will be forthcoming. The following present some data that suggest the problem is larger than just informing employers. More than increased contact is necessary; it is the nature of the contact that is crucial.

Several questions were asked to assess the respondents' information about and contacts with vocational education. They were first asked: "What types of courses do the words 'vocational education' suggest to you?" The interviewers were instructed to probe at length to get the respondents to mention as many courses as they could think of. The respondents were scored by the number of these six types of programs they named: (1) business or clerical, (2) home economics, (3) trade and industrial, (4) distributive education, (5) technical, and (6) nursing. If the respondent listed several different programs all of the same type, he was scored as only mentioning one.

It was anticipated that respondents who had a more differentiated knowledge of vocational education would have different attitudes towards it. These expected differences, however, did not materialize. Respondents who named one or more types of courses did not differ significantly from those who made general references to practical or job-oriented courses. In other words, more knowledge about vocational education, as measured by this question, was not associated with more positive attitudes.

Nor was simple contact with vocational education an accurate indicator of attitudes. The crucial variable seemed to be the type of contact. As Table 7.16 shows, the most frequent type of contact was a visit from school personnel. However, the employers who were visited had the lowest mean attitude towards vocational education as measured by the Likert and semantic differential scales. The Duncan test showed the visited group mean to be significantly lower than the means for four of the groups who had experienced other types of contacts.

The data in Table 7.16 suggest that it is necessary to get employers involved in the educational process to influence their attitudes. Employers who had expended some effort, who had served on committees, hired work-study students, visited schools, or participated in career day, had more positive attitudes than those who had only been visited by school personnel or who had had no contact at all. Unfortunately, employers with no contact or who were only visited represented 75 per cent of all those interviewed. It seems likely that if the number who had experienced active contacts were larger, the differences between them and those without such contacts would have been more sizeable.

The point may be raised that all that these data show is that employers with more positive attitudes are predisposed to more active contacts; employers with less positive attitudes avoid such contacts. Since the data do not show causality, this may, of course, be true. However, many recent experiments on attitude change suggest that the influential variable is behavior; once behavior has changed, attitude change follows. This would suggest that once an employer has participated actively in some phase of vocational education his attitude will become more positive. If this is true, the secret to good school-employer relations is not just "educating" the employer about vocational education but enlisted his positive aid and participation in the program.

The responses to two related questions, shown in Table 7.17, further emphasize that communication by itself is not the key to greater school-employer cooperation. The answers shown were received in response to the following questions that were asked one after the other: "Has anyone from the schools' vocational education programs ever talked with you to see if they could serve your needs better?" and then, "Do you feel you are getting the cooperation you need from the high schools in filling your employee needs?"

TABLE 7.16

Employers' Contact with Vocational Education

Type of Contact	Total Sample		Attitudes Towards Vocational Education Likert	Sem Diff	N for Means
	%		Mean	Mean	
Visited by School Personnel	11		102	104	40
On Advisory Committee	8		109	117	30
Work-Study Employer	6		111	119	19
Career Day Participant	4		110	119	14
Visited School Personally	3		115	112	9
Miscellaneous	3		109	105	8
No Contact - Evasive Answer	64		104	110	199
Total	99	F-Ratio	1.98	2.11	
Number	658	p	<.10	<.05	319

Duncan's Multiple Range Test

Scale	Difference	p
Likert	Visited School > Been Visited	<.05
Semantic Differential	Career Day > Been Visited	<.05
	Work-Study > Been Visited	<.05
	Advisory Committee > Been Visited	<.05

The responses are presented together in Table 7.17 because of their discrepant results. However, many of the respondents did not seem to be aware of any contradiction in their answers. In analyzing the question the discrepancy arises because the per cents giving favorable answers were just about reversed. Only 35 per cent responded that they had talked with school personnel, but almost double this figure, 61 per cent, felt they were getting the cooperation they needed. Even without communication many employers seem to feel that since they had an adequate supply of applicants for their job vacancies the schools were doing their job. However, the fact that a third of the employers felt the schools were not giving the cooperation needed, should serve as a warning to the schools. It is unlikely that this attitude will be corrected simply by contacting the employers. To reiterate, the results suggest that more than increased communication is necessary.

When the responses on cooperation were tabulated by percentage of nonwhite employees, it was found that employers hiring nonwhites were less likely to agree they were receiving the cooperation they needed. The relationship is shown in Table 7.18.

TABLE 7.17

Employers' Evaluation of Schools' Communication and Cooperation Concerning Their Employee Needs

	Talked with School Personnel		Feel Getting Cooperation Needed	
	%		%	
Yes--Favorable Comment	12		15	
Yes--Moderately Favorable Comment	13		14	
Yes--No Comment	10	35	32	61
No--No Comment	55		20	
No--Negative Comment	7	62	12	32
Other Responses	*		4	
Don't Know -- No Answer	3	33	4	8
Total		100		101
Number		658		658

* Less than .5 per cent

TABLE 7.18

Employers' Evaluation of School Cooperation by Percentage of Nonwhite Employees

	Per cent Nonwhite Employees		
	None	1-5%	6% or More
	%	%	%
Receiving Necessary Cooperation	73	60	51
Not Receiving Necessary Cooperation	20	32	43
Other Responses	2	6	4
Don't Know -- No Answer	6	3	2
Total	101	101	100
Number	174	164	227

The trend is certainly clear enough that as the percentage of nonwhite employees increased the satisfaction with school cooperation decreased. At first glance this seems ironic: employers who provided employment for nonwhites, those who have the most difficulty obtaining jobs, received the least help from the schools. Yet, given the labor market for nonwhites, it may be that employers who hired nonwhites were those with whom the schools made less effort to place their graduates. Though the nature of the sample interviewed tends to refute this argument, it must be considered before the blame for lack of cooperation is placed on the schools.

Employers were next asked if they could think of any way in which the schools' vocational education curriculum could be improved; increased contact was not one of the most frequent suggestions. Almost half of the sample, 42 per cent, could not offer any suggestions. The suggestions most frequently offered are shown in Table 7.19.

TABLE 7.19

Employers' Suggestions for the Improvement of Vocational Education

	Total Sample	Respondents Who Made Suggestions
Curriculum Change		
More Vocational Training	20	34
More Basic Subjects (English, Mathematics, etc.)	8	13
School Should be More Oriented to Employers' Needs	8	14
Increased School-Employer Contact	8	13
Change Characteristics of Students	5	8
Increased Work-Study Program	4	7
Other Suggestions	6	10
No Suggestions-No Answers	42	*
Total	101	99
Number	658	382

* Eliminated from these percentages

Table 7.19 reinforces two points that have already been made. The first is that employers, in general, have not given much thought to the role that education can play in their operations. The second point is that employers do not seem particularly concerned with learning more about vocational education. Many vocational educators have stated the need for increased employer involvement. If this is to be brought about, these data indicate the initiative will have to come from the schools.

The attitude scores of employers making the various suggestions listed in Table 7.18 were compared. There were few significant differences, but one interesting difference did appear. The employers who suggested more work-study programs had the lowest mean score on both the Likert and semantic differential scales. The results in Table 7.16 showed that employers who were involved in work-study programs have relatively positive attitudes. This seems to suggest that work-study programs would be one way in which employer interest and participation in vocational education can be increased.

SECTION III: THE UNIONS' PERSPECTIVE

For some young people union membership is a necessary condition of entry into the labor force. Those who aspire to the skilled trades through apprenticeship find union membership to be the only route available. Other young people who are employed by companies with union contracts are, at times, not allowed to apply for jobs for which they are prepared because of seniority restrictions in the contract. Even those workers who never join a union are often influenced by union practices that set standards for unorganized workers.

The degree of union influence, both direct and indirect, is thus considerable. Two aspects of this influence were investigated in this study. The first concerned union attitudes towards young people as union members. The underlying issue, which the questions tried to explore, was whether unions act to restrict the entry of young people into the skill areas under their control. Since this issue is a sensitive one, the interview schedule approached it obliquely so that the respondent's cooperation would not be lost. The second general area of union influence which was covered was how informed union officials were about vocational education, including their contacts with it and attitudes towards it.

The interview schedule designed to obtain information in these areas was developed and administered to a sample of union officials in the nine cities. Of a total of 90 unions represented in the sample, 52 were craft unions, 31 were industrial unions, and two could not be categorized as one or the other. Five respondents did not classify their unions. Because of the small number of respondents, all of the percentages must be interpreted cautiously. The true population value may be quite different from that obtained. The small N also prevented internal analyses of the replies, so this section is necessarily more descriptive rather than analytical. The respondents were in all cases participants in the union decision-making process and conversant with union policy. Although the answers represent the thinking and perceptions of the individual union leaders interviewed, rather than a consensus of the union membership, this thinking probably reflects union policy.

Attitude Towards Young People as Union Members

The first approach to the issue of union restrictive practices was to ask how good a union member a young high school graduate makes. Eighty-eight of the 90 respondents answered this question; 38 per cent replied that graduates make good members, 16 per cent replied that graduates make poor members, and

46 per cent said that they could not answer in the abstract. Although the reasons given for these judgments were varied and did not readily lend themselves to simple categorization, a salient theme in the responses recurred fairly often: a considerable number seemed to think that "family background" was the most important element in making of a good union member. This probably means that youngsters whose parents were union members, or were sympathetic to unions, were thought to make better members.

The responses to the question on sources of new members also reinforced the importance of family and friends. The union officials gave the sources listed in Table 7.20 as the most important for young members.

TABLE 7.20

Major Sources of Young Union Members

Source	Per cent
Employers Hire	32
Members' Recommendations	23
High Schools	18
Others	26
Total	99
Number	77

In the "employers hire" category there were twice as many industrial as craft unions, 14 to 7. The ratio was reversed in the "members' recommendations" category where there were 10 craft unions and five industrial unions. The percentage in "members' recommendations" understates the amount of personal influence, however, for many of the sources classified as "high school" and "others" undoubtedly were directed to the union by family or friends. For example, of all 16 union respondents who mentioned high schools as their major source of young members, 10 of these respondents were from craft unions. Generally young people who prepare for skilled trades while in high school are probably reflecting family influences in their career choices. The extent of personal influence was thus much larger than the 23 per cent represented in "members' recommendation," and personal influence was more important for the craft unions.

There was clear evidence that some unions favor relatives of present union members. Fourteen per cent (11 of 77 respondents) specifically stated relatives, usually sons, were their major source of young workers. Nine of these 11 respondents were from craft unions, and two were from industrial unions.

The respondents were then asked if their union conducted any recruiting programs among young people. Over four out of five (82 per cent) did not. Among those unions that did, the programs tended to be informal such as participating in career days, distributing pamphlets, and personal contacts.

Finally, to assess their attitudes towards young people as union members, the respondents were read a series of 21 short descriptive statements. They were asked whether each of these phrases better described younger or older members of their union. Eight of the 21 phrases met all but one of the criteria for a Guttman unidimensional attitude scale.[5] The eight items are shown in Table 7.21.

TABLE 7.21

Items that Approximate a Guttman Scale on
Attitude Toward Young Union Members

Item	Per cent Stating Item Describes Young Members
More Enthusiastic About Union	21
More Loyal to Union	35
Work Harder for Union	36
Are the Strength of the Union	36
Support Their Leaders Better	37
Are More Active in Union Affairs	42
Put the Good of the Union Before Their Own Interests	47
Put Their Union Before Their Jobs	62
Number	81
Coefficient of Reproducibility = .89	

These items seem to be reflecting an attitude dimension of loyalty towards the union. The respondents apparently did not feel young people were their most loyal members. Only one of the items was supported as more descriptive of young members by a majority of the respondents. Approximately two-thirds or more of the respondents thought five of the eight items better described older members.

From the evidence gathered in these interviews, unions did not appear to be facilitating the transition of young people from school to work. The union representatives had less than positive attitudes toward young members. They saw their young members as somewhat lacking in loyalty and as causing problems, such as filing grievances and pressuring more for higher wages. There was no indication of any real desire on the part of the unions to ease the entry of young people into the work force. In fact, a substantial 17 per cent of the craft unions (9 of 52) admitted that their major sources of new members were relatives, usually sons of present members. Just as the employers' efforts were primarily devoted to running their businesses, so too were the unions' efforts directed to their members.

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[5] Edwards, A.E. Techniques of Attitude Scale Construction. New York: Appleton-Century-Crafts, 1957, Chapter 7. The criterion that was not met concerned sufficient difference in the percentage responding positively to successive items. Four of the items, 2 through 5, have almost identical percentages of positive responses.

Unions and Vocational Education

The questions on contact with and attitude towards vocational education revealed the same lack of real interest in things outside the scope of union affairs. Vocational and technical education has not been considered by the unions as a union responsibility, except through apprenticeship, which is union-controlled. Thus the major burden of vocational education rests with the school systems.

Little preference for vocationally trained graduates has been evinced by unions despite the fact that a majority of new members have such a background. Responses to a specific question about their knowledge of the training backgrounds of young members revealed that 38 per cent of the sample had no idea what high school curriculum their young members had taken. It can be surmised that the 28 per cent of the sample which chose not to answer this question also did not know. Whether or not the information was available is not known. Of the 35 who did know, 85 per cent of them (30 per cent of the total sample) said the curriculum was vocational.

The officials were asked how adequate they thought the vocational education curriculum in the local schools was. Forty-eight per cent thought that their local schools were doing an adequate job and another 32 per cent did not think they were adequate. The remaining 20 per cent chose to give "No answer." These responses can be considered more attitudinal than factual since other questions showed the officials had little or no actual knowledge or contact with the programs.

Actual contact between the union and vocational education programs in the schools was often fragmentary and unstructured. When asked what contacts they had had with such school programs, the majority revealed that they had none.

TABLE 7.22

Union Officials Contact With
Vocational Education Programs

Type of Contact	Per cent
None	71
Advisory Capacity	18
Apprentice Program	4
Other	4
No Answer	2

If the official made no mention of ever consulting with school officials, he was asked specifically if this were done. Out of the sample of 90, a total of 76 were asked this question; 37, or 41 per cent of the total sample answered "Yes." This percentage is considerably higher than the sum of all types of contact listed in Table 7.22. One can only speculate why more of the respondents did not mention their advisory work when first asked about types of contact. Part of the reason probably lies in the nature of memory -- recognition is always easier than recall. The respondents may not have recalled these contacts, but did remember them when reminded. Part of the reason may also be in a desire to give the status-building "correct" answer. To the degree this tendency influenced the answer the percentage is inflated.

Fifty-eight per cent of the officials had suggestions on how the programs might be improved. As mentioned previously, many expressed a need for more mathematics. Others gave suggestions in line with their particular union's needs. For example, a representative of an electrical workers union suggested that the school programs be made more "electrically oriented." More vocational education in the "vital" and "growing" areas was also mentioned. Several respondents suggested teaching the youngsters the history of the labor movement. One may notice the similarity of answers for this question and the previously discussed inquiry concerning any skills or qualities lacking in applicants. In both instances there appeared to be an "off the top of the head" quality, rather than serious thinking about the role that the schools should play.

The officials interviewed were also asked where they thought the skills needed by industry in the future may come from. Out of 81 union officials who answered this question, only 38 per cent felt that the necessary skills might come from the schools despite the possible suggestive influence on respondents of the previous discussion of schools and vocational education. Almost as many (36 per cent) felt that the unions themselves will -- in one way or another -- be the supplier of these skills. Again no indication of planning was evident. Other answers were not so easily categorized. Some officials thought that cooperative union-management training programs would be the answer. Several thought that the only way the skills could be acquired was through on-the-job training.

Apprentice and Union Training Programs

Except for two union officials who did not answer whether or not they have an apprenticeship program, 60 per cent indicated their unions had such a program. Of the 53 unions which did have apprenticeship programs, 42 were craft unions and 11 were industrial. Thirty per cent of those unions with apprenticeship programs said their programs were coordinated with the vocational education programs of the local high schools. But of this 30 per cent, only about half give credit toward apprenticeship to those who had taken vocational education programs at the schools.

The skills or quality of preparation of applicants for apprenticeship did not figure significantly in the union officials' judgments of young people. Officials were asked whether there were any skills or qualities that such applicants do not have which the union leaders would like them to have. The responses -- or, rather, the lack of responses -- might perhaps be taken as an indication that no clear or official policy formulation of such skills and qualities had been enunciated. Almost half (42 per cent) of the respondents gave a response which could only be coded as "No answer." Another 29 per cent simply said, "No." The 29 per cent which attempted to respond concretely most often mentioned as a shortcoming the lack of a mathematics background. Other and more general qualities such as ambition, ability, etc., were frequently mentioned. The majority of the remaining answers were in line with the particular union's needs; for example, a plumbers union official cited a lack of "plumbing theory." But a surprising total of 71 per cent of the sample were unwilling or unable to take this opportunity to point up any shortcomings which could indicate guidelines for future remedies.

It was perhaps not surprising to learn that 69 per cent of the union sample did not conduct or participate in any other types of training programs. The programs of the 31 per cent which indicated that the unions did have other training programs were of different varieties. Twenty-five per cent of these programs took the form of training for stewards and other union officials. Approximately 55 per cent of the "other" programs were in the nature of classes for union members, conducted either at night or in the summer. Many unions participated in academically oriented programs, sending members to labor institutes offering courses in history, sociology, etc. Short training sessions in the field dealing with specific issues or problems were also included, as well as the more technical courses ranging from time-study techniques to how-to-do-it instructions.

Sources of Skill Development

The 62 per cent of the respondents who did not mention schools in their original answer to the question as to possible sources of skill training were asked if they thought the local schools could help by teaching these skills. A majority, 56 per cent, replied affirmatively; another 20 per cent said, "No;" the remaining 24 per cent declined to answer. The reliance upon the school programs was not great. This stems from lack of confidence in or lack of knowledge about vocational education in the schools or lack of perceived need or both.

Relatively few of the union officials represented conceived of their unions as major factors in the training of workers. In answer to the question "What role do you think the union you represent can play in developing these skills?" the majority of responses were general, indicating such unformulated aid as "giving advice." A substantial 20 per cent gave "No answer." Ten per cent said they saw no role for the union in the matter at all. There were some who felt that the union could play a limited role by helping the schools with their programs. Although a few made specific suggestions, such as committing the union to supply instructors or funds, most of the responses were again vague.

It should be kept in mind, however, that the vagueness and lack of structure evident in these responses is often largely due to the lack of effective communication between the schools and those who could advise them. Too often no viable working relationship has been established between those representing the student as a potential worker and those representing the worker as union member. Twenty-three per cent of the union officials saw either their union apprenticeship program or some form of union-operated school as the role the unions could play in developing skills. It may very well be that if concrete proposals, consistent with the needs and image of the union as the controlling factor of the labor market, could be developed, the unions might play a more active part in the training of young people for employment. But, as much of the foregoing has indicated, the initiative must come from the schools.

Because of the increasing training opportunities being made available through the Federal government, union officials' attitudes towards governmental training and retraining programs such as Manpower Development Training Act or Area Redevelopment Act were also explored. Fifty-three per cent of the officials felt that such programs were useful. Twenty-four per cent felt they are not useful, and 16 per cent said, frankly, that they did not know enough about such programs to comment.

Several reasons were prominent for terming the programs not useful. Some thought the training period was too short to accomplish very much. Others stated that the wrong skills are being taught in these programs and a few mentioned the evils of too much government intervention in the economy. Since non-union training puts control of the labor market out of the union's reach, unions, especially those which include training in their programs, have reason to be concerned about such a trend. Obviously there is a need for better communication and coordination in planning, as well as executing, training opportunities.

In summary, interest and participation in the pre-membership training of young people for jobs do not seem to be major concerns of unions. Most unions have had no contact at all with vocational education programs in the local high schools. Relatively few union leaders think that skills necessary in the future will come from training in the schools, but neither do they consider the unions as a major factor in the training of young people. In fact, the union officials interviewed had little or no idea of what skills or qualities it would be a good idea for union members to have, or what at present is lacking both in young people and in educational programs. In all of these areas the similarity of the employers' and union officials' responses is obvious.

SECTION IV: SUMMARY AND CONCLUSIONS

General Summary

The attitudes of three different groups of respondents, all of whom have a great deal of influence on the education and employment of young people, were assessed. The attitudes of teachers were measured by means of a self-administered attitude questionnaire. Employers were both interviewed and asked to complete the same questionnaire the teachers completed (about half did so). Union officials were also interviewed.

Because of the different methods used to obtain the data, few inter-sample comparisons could be made. All three groups supported the concept of education, including vocational education. When their responses and scores were analyzed by various classification variables, however, some differences were found within each group.

An analysis of the 1,600 teacher attitude scores showed, as would be expected, teachers in exclusively vocational schools were much more favorable towards vocational education. Grouping the teachers not only by type of school, but also by subjects taught, showed type of school to be the more important variable. Teachers of vocational subjects in vocational schools were the most favorable towards vocational education. Teachers of academic subjects in vocational schools ranked second. The most negative group was made up of teachers of academic subjects from comprehensive schools. Examination of the separate item responses on the scales revealed that it was these teachers who felt most threatened by vocational education. Most of the academic teachers agreed with the idea of vocational education, but were skeptical of its actual operation.

About half of the 658 employers interviewed responded to the attitude questionnaire. The mean scores of the employer sample were quite similar to the mean scores of the teachers, reflecting society's general support of education. The employers were grouped by various classification variables such as number of employees and industrial classification and their mean attitude scores compared. There were few significant differences among the groups in mean attitude scores. One variable that did yield a difference was whether or not the employer had nonwhite employees. Those employers who did have nonwhites in their employ tended to score less favorably toward vocational education. Employers who had had the more active types of contact with vocational education tended to be more favorable towards it.

To assess attitudes in a different way, the employers were asked to make some difficult hiring decisions based on hypothetical choices. These decisions showed a tendency of employers to make the choices that appeared to offer the lowest probability of future problems. For example, in one of the situations an experienced secretary, with a history of job-switching, was typically rejected while a recent business-trained graduate was selected. These choices did show that when an employer is confronted with a difficult decision, vocational training can often be an advantage.

The employer interview explored the types of jobs for which young people were hired. It was found that while 75 per cent of the employers hired nongraduates, they were hired for only 37 per cent of the jobs. Of the jobs for which employers hire young people formal training off the job was given for only 11 per cent of them. For 65 per cent of the jobs there was some on-the-job training. The remaining quarter of jobs (24 per cent) offered no training at all. The employers were generally satisfied with the type of preparation young people received for these jobs. Personnel officials were more likely to believe their new employees received their job training in high school while top executives thought they received it on the job. High schools were not the major sources used for recruiting young employees.

The employers were asked about the jobs they were currently finding it hardest to fill as well as their projections of future needs. The jobs most often mentioned that are not usually found in the vocational curriculum were technicians, both medical and engineering, and broadly trained repair and maintenance workers. Many employers, however, could not answer these questions. They said they had no unmet needs or they answered in vague generalities.

When the union officials were asked about the current and future role of their unions in the vocational preparation of youth, they also found it difficult to reply. Most of the officials did not consider their unions to be involved in training. Even those unions with apprenticeship programs saw them more as a control of the supply of the skill rather than as a training function. Some of the officials admitted that their major source of new members was relatives, usually sons, of current members.

Union officials, in general, had had little contact with the vocational education programs in the schools. Over half did not know the curricula their members had taken in high school. Less than a third of the union apprenticeship programs were coordinated with the local schools, and only about half of this 30 per cent gave apprenticeship credit for high school courses.

General Conclusion

Throughout all of the analyses the degree of the respondents' involvement in vocational education was found to be most consistently associated with predictable differences in attitudes and opinions. Teachers from vocational schools, whether they taught vocational or academic subjects, were most favorable towards vocational education. Employers who have had more active contact and involvement with vocational education were also more favorable. Although attitude scores could not be cross-tabulated against union leader responses, the same theme of increased involvement yielding more positive attitudes was detectable.

If involvement is the key variable, the crucial problem becomes one of finding ways of increasing involvement, for the data also show that its present level is low. Employers and union officials gave the impression that they were not particularly concerned with what the schools are doing. They devoted their efforts to dealing with the problems of their own organizations, and these problems did not involve training young people. As a result, they gave little thought to what the schools were trying to do.

To reveal this lack of interest is not to criticize these respondents. Most people give serious attention only to those things that concern them on a day-to-day basis. This being the case, educators must assume the lead not only in their traditional role of administering vocational education but also in stimulating the active participation of all concerned segments of society. One study has recently made the same recommendation in calling for the "operational" as opposed to the "advisory" involvement of industry.[6]

As educators are successful in bringing forth active participation, a probable by-product will be more favorable attitudes among the participants. The data from this study showed employers who participated most actively in its programs scored highest in favorability towards vocational education. Employers who had only been visited by school staff did not score higher than those who had had no contact. On another question that asked for employers' suggestions on how vocational education could be improved, the employers who suggested more work-study programs had one of the lowest mean attitude scores. The obvious inference is that work-study programs could be an effective means of fostering more favorable attitudes.

In general, it is probably true that any technique that induces employers to take an active role in some phase of vocational education will be associated with more positive attitudes. This is the reverse of the usual approach of attempting through educational programs to change attitudes which, it is hoped, will lead to changes in behavior. Bringing about a change in behavior is, of course, more difficult than just presenting information. One way to change behavior may be for school officials to contact employers and union officials with specific requests for participation in specific projects, rather than just contacting them to inquire, "How can the schools serve you better?" The high percentage of employers who failed to respond to similar questions in this survey suggests they are none too sure.

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[6] Burt, S. M., "Industry participation in local public school vocational and technical education," in S. A. Levitan, and I. H. Siegel (Eds.) Dimensions of manpower policy: Programs & Research. Baltimore: The Johns Hopkins Press, 1966. Pp. 181-199.

The responsibility lies with the schools to design useful programs in cooperation with others in the community and then to enlist support for them. If concerned parties become involved in such programs, the "image problem" of vocational education may be largely overcome.

Other techniques may be necessary for eliciting the full support of nonvocational teachers in academic and comprehensive high schools. These teachers are, of course, involved and while they favor the idea of vocational education they are doubtful of its effectiveness. Teachers of academic subjects working in a vocational high school do not show the same skepticism. They are too closely tied to vocational education to permit such conflicting attitudes. Nonvocational teachers in academic and comprehensive schools, on the other hand, seem somewhat threatened by all the current activity in vocational education. Many vocational educators would prefer to see a decrease in the number of academic subjects taught separately. They would prefer that the content of these courses be taught as an integral part of particular vocational skills. Thus, the concerns of the nonvocational teachers may have some basis. Seen in a historical perspective, however, it seems unlikely that vocational education will make any significant changes in the teaching of traditional courses.

An attempt to explain the role of vocational education to nonvocational teachers may allay some of their fears. But given the competition of different curricula interests for their share of the resources available for education, a certain amount of competition is probably inevitable and even desirable.

CHAPTER 8

THE COMPREHENSIVE SCHOOL VERSUS THE SEPARATE VOCATIONAL SCHOOL

Currently one of the most debated questions in vocational education is whether vocational skills should be taught in a comprehensive high school, that includes students from all curricula, or in a separate vocational-technical high school that teaches only vocational students. The more fundamental questions of what constitutes the best preparation for work and at what ages should such preparation be carried on seem to have been decided by Congress, which has appropriated large sums of money for skill training at the secondary level. With this money vocational educators have been equipping and expanding their programs. The debate, however, has centered on the proper setting for vocational education.

The proponents of the comprehensive high school cite the advantages of having students from all sectors of society brought together. Students come to know others who differ in background and interest, and the understanding developed from these contacts produces better citizens. At the more immediate level, the comprehensive high school offers the vocational student full opportunity to participate in a greater variety of courses and more extra-curricular activities. Ideally, in this setting the courses are not drawn along curriculum lines. Vocational students take the same English and social studies courses as other students with the same level of ability. And the extra-curricular activities are presumably available to all.

Those who see more advantages in separate vocational-technical schools concede some of the potential advantages of the comprehensive school but claim they are more praised than practiced. Too often vocational students find all the positions of class leadership held by the academic (college preparatory) students. Ability groupings in nonvocational subjects often result in classes that are drawn along curriculum lines: the more intellectually able students, being enrolled in the primarily college preparatory curriculums, end up in the same classes and the vocational and general curriculum students, being less intellectually facile, in other classes.

Besides these negative aspects of the comprehensive school, the advocates of the separate vocational-technical school think the separate school has some real advantages. The most obvious advantage is the greater variety of programs that can be offered. By bringing together all the interested students from a wide geographic area, sufficient numbers permit specialized programs that no one school could afford. The area school avoids costly duplication and these savings permit the purchasing of more complete and modern equipment and the hiring of better trained personnel. Non-vocational subjects can be related to the students' interest in their trades. Students can be taught geometry, for example, not in the abstract but in relation to practical problems in carpentry or sheet-metal work.

In all of these arguments the experience of the students to the different settings is ignored. To what degree do the two types of schools produce the results claimed for them? Do the students in a comprehensive high school really get to know one another or do they form groups along curriculum lines? Does the presentation of academic material in the context of a trade create increased functional learning in the vocational-technical school? If all the conflicting claims are true, how does an educator decide among them?

The data collected in this study were analyzed in an attempt to answer some of these questions and bring some evidence to bear on the issue. In the three small communities studies the high schools were comprehensive, that is, the vocational students were not separated. They attended the same non-vocational classes and shared home rooms with the academic and general curriculum students. The three large cities, on the other hand, had separate vocational schools. These were, in effect, the area vocational schools for their cities. Students had to apply and be accepted. Once accepted they no longer attended their neighborhood school. The vocational school was their high school. In this chapter the male respondents from small and large communities are compared on many of the questions that related to their feelings about their high school experiences. Although the responses of both males and females were analyzed this chapter is limited to the male data since males were more clearly identified as coming from a comprehensive or vocational school. Many of the vocational females, especially those in office occupations, received their training in comprehensive high schools.

Students in large cities differed from those in small communities in many other characteristics besides the type of school they attended. The ratio of white to nonwhite showed a large degree of disparity. In the large cities there were 25 per cent or more nonwhites in all three curricula. In the small communities the percentage was five per cent or less. Since many of the questions concerned feelings of acceptance by classmates, one might expect nonwhites to be more likely to have reported feelings of rejection. Most of the data, on the contrary, indicate that nonwhites were at least as likely as whites to report feelings of acceptance and in some cases even more so. Occasionally these white-nonwhite data will be mentioned when the city comparisons are made.

The IQ's of the graduates from the different size communities were comparable, where these data were available. For the vocational graduates the difference in mean IQ was only .40. The differences were somewhat larger among the academic and general curriculum graduates, but all clustered around the total population mean of 100. The distributions, means and standard deviations are shown in Table 8.1.

The differences in father's education were somewhat greater than those for IQ. In general, the fathers in the small communities tended to have had more formal education. But here again, the similarities outweigh the differences, especially within curricula. Table 8.2 presents these distributions. Median family income was also quite similar. All groups, except small community vocational graduates, had a median income of $6,000. The small community vocational median income was $5,000.

From the evidence presented it seems that in many ways the graduates of the same curricula in the large and small communities were similar. It should be kept in mind, however, that there may be other variables more important than these on which the graduates differed greatly. It seems very likely, for instance, that in the small communities the students knew each

TABLE 8.1

IQ Scores by Size of Community

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
IQ Scores						
130 or More	0	*	5	3	0	0
120 to 129	4	2	13	8	5	3
110 to 119	14	10	24	31	13	11
100 to 109	28	32	31	22	37	29
90 to 99	29	38	19	19	29	33
80 to 89	17	13	6	11	12	16
70 to 79	5	3	3	3	2	8
69 or Less	1	*	0	1	1	1
Total	98	99	101	98	99	101
Mean	98.48	98.08	106.76	104.36	100.65	97.19
SD	12.67	10.78	13.29	14.29	11.22	12.20
Number	221	402	106	144	169	119

*Less than 1 per cent.

TABLE 8.2

Fathers' Education by Size of Community

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
6th Grade or Less	6	10	4	7	5	12
7th to 9th	29	29	12	17	24	24
10th to 12th	27	22	22	24	33	27
High School Graduate	24	16	32	23	19	13
Post-High, Noncollege	2	1	1	2	3	0
Some College	2	3	12	12	4	3
College Graduate or More	2	3	11	7	4	2
Don't Know	8	17	5	8	8	18
Total	100	101	99	100	100	99
Number	249	592	112	260	186	283

other better than in the large cities. The social stratification of families in the small communities may have been more visible. These variables, rather than the difference in type of school, may account for the observed differences between vocational students in large and small communities. This study has no evidence on the possible effects of these other variables, but if they were operating it seems they should have affected the other curricula as well. For this reason the results for each question are presented by community size for all three curricula. The differences between large and small community vocational graduates acquire greater meaning when compared to the responses of academic and general curriculum graduates. When the differences between vocational graduates are markedly different and the differences in the other curricula are not, one can have more confidence in the assumption that the differences are associated more with the type of school than with the size of city.

Reasons for Curriculum Choice

Since the choice of curriculum has so many implications, both during and after high school, it is pertinent to determine the reasons graduates gave for making their choices. Table 8.3 presents some of the reasons most frequently mentioned by respondents. It should be noted that these are the reasons stated at the time of the interview, not at the time choices were actually made.

Most of the differences were curriculum oriented: academic students chose to prepare for college, while vocational students had other reasons for taking the courses they took. The higher percentage of vocational graduates in the large cities which cited "interest" as the reason for their choice gives some support to the argument that the separate vocational school through its wider range of offerings can satisfy more varied interests.

It is at the time of course selection that skilled guidance can be most helpful. The graduates were asked to evaluate the guidance they had

TABLE 8.3

Most Frequently Mentioned Reasons for
Choosing High School Courses

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
Reasons						
Prepare for College	1	1	53	59	11	4
Prepare for Job	22	22	1	3	13	29
Prepare for Future - Unspecified	12	11	11	10	17	12
Interest	33	43	11	7	17	19
Number	257	612	119	267	195	299

received in their course choices. They were first asked if they had ever discussed their course choices with a guidance counselor and, if they had, they were asked how helpful they thought these discussions had been. Their responses were rated on a five-point scale from "very helpful" to "not helpful." Some of these ratings were grouped for presentation in Table 8.4.

Over half of all the vocational graduates in Table 8.4 reported never having discussed their course choices with a counselor. By the community grouping, it was only among the vocational graduates that the small town respondents received less counseling than their counterparts in the large city. The academic and general curriculum graduates both reported more exposure to counseling in the small communities. The vocational graduates reported more exposure in the large cities. The difference was not large, only six percentage points, but the fact that it was reversed for the vocational graduates pointed up the relatively less attention they received in the small communities. It should also be noted that of those respondents who received formal guidance and who made an evaluative response, three-fourths or more responded in a manner that indicated the guidance had been helpful. Only one-fourth or less made a response that was judged as "not helpful." Table 8.4 need not be interpreted as critical of counseling, but it does point out that counselors were either less able to reach the non-academic student, or if they were reached, the sessions were not effective enough to cause graduates to remember them at a later date.

To obtain a global and overall evaluation of their curriculum choices the respondents were asked if they would suggest that a young person just starting high school take the courses that they (the respondents) took. The usual response was that it depends on the person. The interviewers were instructed to reply to such a response, "Well, suppose the student were pretty much like you at that age." If the respondent said he would suggest the young person take the same courses, the interviewer went on to the next

TABLE 8.4

Retrospective Evaluation of Guidance
Received in Course Choices

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
Ratings of Helpfulness						
Very--quite	16	21	30	37	22	32
Moderate	15	13	25	16	24	14
Not Helpful	11	7	19	19	17	10
No Rating	2	7	3	0	3	4
No Guidance	57	51	22	28	34	39
Total	101	99	99	100	100	99
Number	256	618	118	270	195	299

question. If the respondent said he would not, the interviewer asked what courses the respondent would suggest. The main replies to these questions are listed in Table 8.5.

On this question the students in the small communities in all three curricula showed up as less satisfied. However, the vocational graduates recommended their courses at about the same frequency as the academic graduates in the cities of the same size. Thus, it would be difficult to say that the type of school influenced this response. The low percentage of general curriculum graduates who recommended their curriculum is noteworthy. On most other questions the general curriculum graduates responded in a manner that was somewhere between the vocational and academic graduates. In this instance, however, they were much less likely to recommend the general curriculum to someone else. If this question did serve as an overall evaluation, the general curriculum graduates rank lowest in satisfaction with the curriculum they pursued.

Feelings About School Experiences

Is the claim of greater contact with different types of students made for the comprehensive high school substantiated by the experiences of the students? Or do groups tend to form along curriculum lines that restrict contact with other students? To answer these questions the respondents were asked if, when they were in high school, they had a group of friends they usually did things with as eat lunch, go to athletic events, etc. Those who replied that they belonged to such a group were asked if these friends had taken the same courses as they did. The responses are shown in Table 8.6.

There is little indication from Table 8.6 that the comprehensive high school was associated with having friends from different courses. The percentage whose friends had taken the same courses as they had was fairly constant across community size for both vocational and academic graduates. General curriculum graduates had fewer friends from their curriculum, but here too the percentages were constant across community size.

TABLE 8.5

Graduates' Recommendations to a Young Person Just Starting High School

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
Recommendations						
What I took	51	61	52	64	32	37
Vocational	-	-	8	4	9	5
Academic	15	6	-	-	17	20
Wrong Choice	5	2	1	5	6	5
Depends on Person	7	14	6	12	5	16
Number	256	618	119	269	195	295

The graduates who said their friends had taken the same courses were then asked if they ever felt students in other courses were in some ways different. Table 8.7 presents the replies to this question. These percentages, it should be noted, are based only on those respondents who said their friends had taken the same courses as they had.

The graduates least likely to say that other students were different were those from the large city separate vocational high schools. This may simply have been a reflection of the more homogeneous student body in these schools; saying someone is different does not necessarily imply a negative comparision. The respondents who said they felt other students were different were then asked, "In what ways were they different?" It is important to note that throughout this series of questions the number responding became successively smaller. This question was asked to less than one-fourth of the total male sample. (The percentage responding for each category is shown in the bottom row in Table 8.8.) This point is stressed so that results shown in Table 8.8 are not generalized to the total sample. On the other hand, it can be assumed that the feelings that these respondents reported may have been felt to a lesser degree by some others who did not voice them.

TABLE 8.6

Friends Took Same Courses as Respondents

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
Took Same Courses	64	68	69	70	53	54
Other Responses	36	32	31	30	47	46
Total	100	100	100	100	100	100
Number	256	622	119	269	195	297

TABLE 8.7

Respondents Whose Friends Took Same Courses Who Thought Students in Other Courses Different

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
Others Different	37	19	34	38	31	27
Not Different	63	81	66	62	69	73
Total	100	100	100	100	100	100
Number	165	425	82	187	104	160

TABLE 8.8

Ways Students in Other Courses Were Different

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
Ways Different						
Vocational Inferior Socially	15	4	7	1	5	7
Vocational Inferior Academically	10	7	7	18	10	9
Vocational Lacked Initiative	5	4	7	3	5	16
Vocational Did Not Associate	3	10	7	1	0	4
Vocational Were Looked Down On	34	7	11	13	23	11
Total of Responses Negative to Vocational Students	67	32	39	36	43	47
Equivocal Answer	7	7	7	8	13	9
No Value Judgement	26	60	50	44	45	44
No Answer	0	0	4	11	0	0
Total	100	99	100	99	101	100
Number	61	81	28	71	31	45
Number as % of Total Number in this Category	23	11	24	26	16	15

Vocational graduates from small communities (i.e., those from comprehensive high schools) were far more likely to give responses that reflected negatively upon vocational students. While they may have held these attitudes about themselves, they were probably reporting how they saw themselves perceived by others. In other words, they were reporting their perceptions of prevailing attitudes towards them in their schools. The most prevalent of these attitudes, according to the responses of this group of students, was a feeling that vocational students were "looked-down on."

To the degree that such attitudes are present in comprehensive high schools, to that degree, these schools fail to fulfill their greatest promise. Instead of yielding greater understanding and acceptance of people from all sectors of society, the attitudes in these schools seem to be emphasizing differences among people. The source of some of these attitudes could probably be traced to the attitudes of academic teachers. Their attitudes towards vocational education were analyzed in Chapter 7, The Image of Vocational Education. That chapter pointed out that academic teachers in the comprehensive high school felt most threatened by vocational education. They were not impressed by vocational students whom they regarded as lacking scholastic skills. It seems likely that some of these feelings were communicated to the vocational students they taught. Probably more important, however, were the attitudes of those non-vocational classmates who tended to regard vocational students as in some ways inferior.

In the discussion of the questions concerning friendship groups it was emphasized that these were filter questions and a decreasing number of respondents answered each successive one. How general were these feelings over which such a point has been made? To test their generality all respondents were asked directly if they ever felt "looked-down on" because of the courses they took. This obviously was a loaded question. There are many emotional connotations to the admission that the phrase "looked-down on" describes oneself. But, as Table 8.9 shows, one-third of the vocational graduates from small communities said that they had experienced this feeling.

Table 8.9 indicates this perceived inferiority was rather widespread among vocational males in the comprehensive schools. This is certainly an attitude that most educators, with their commitment to equality and respect for the individual, deplore. The question remains, how is it to be overcome? Graduates who attended separate vocational schools did not report feelings of being looked-down on any more than academic or general graduates of comprehensive and academic schools. Is the answer to teach vocational subjects in separate schools? On this criterion alone, the answer would seem to be yes. In vocational schools the students' frame of reference appears to be different from the attitudes possible in a comprehensive school setting. They evaluate themselves in terms of their fellow students who have more similar interests and abilities, and there is a lesser tendency to make derogatory comparisons. How students in vocational schools perceive themselves vis-a-vis students in academic schools was not pursued in this study, but warrants further investigation.

The particular frame of reference in which the respondents make their judgments may also explain why nonwhites reported just as much acceptance as whites. As Chapter 9 on The Negro and Vocational Education points out, over 80 per cent of the nonwhite respondents were from large cities. Because of existing residential patterns in these cities, white and nonwhite graduates had attended essentially segregated schools. When responding to the question: "Did you ever feel looked-down on . . .," nonwhites answered in terms of these schools. Consequently, only four per cent of the nonwhite male vocational graduates said yes. This four per cent is virtually identical to the five per cent of both white and non-white vocational graduates

TABLE 8.9

Graduates Reporting They Felt Looked-Down On

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
Felt Looked Down On	33	5	1	6	7	11
Did Not	67	95	99	94	93	89
Total	100	100	100	100	100	100
Number	255	622	199	270	195	298

reporting they felt looked-down on in the large cities. These answers probably reflect personality characteristics rather than prevailing attitudes in their schools.

Two more questions were asked to test how the students related to their schools: one asked if it was harder to take part in school activities because of the courses taken, and the other asked if the graduate really felt a part of his school. The responses to these questions are shown in Tables 8.10 and 8.11.

Table 8.10 confirmed the results of Table 8.9. The relationships among the communities and curricula were much the same. The vocational graduates in the small cities were much more likely to report feelings of exclusion. Table 8.11, however, does not show the same tendency. Vocational graduates in small communities felt just as much a part of their school as academic or general curriculum graduates. Once again, the large city vocational graduates showed the most favorable pattern of responses. In other words, they had the lowest percentage who indicated that they did not feel themselves to be a real part of the school.

Even though small community vocational graduates were found to feel looked-down on and felt it was harder to take part in activities, they still

TABLE 8.10

Graduates Feeling It Was Harder to Take Part in School Activities

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
Harder to Take Part	31	7	15	13	11	11
Not Harder	69	93	85	87	89	89
Total	100	100	100	100	100	100
Number	257	622	119	270	195	299

TABLE 8.11

Graduates Feeling They Were Really A Part of Their School

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
Not a Part	15	8	15	13	19	17
Really a Part	85	92	85	87	81	83
Total	100	100	100	100	100	100
Number	257	621	119	270	194	298

said they felt a part of their school. These results seem to indicate that the vocational students felt that they should be accepted by their classmates, but in the comprehensive setting they perceived attitudes of condescension and exclusion on the part of others. However, these attitudes were not sufficient to convince them that they were not actually as much a part of the school as students in different curriculums.

To the same two questions the responses of nonwhite graduates indicated feelings of acceptance and attachment to their schools. Only four per cent thought it was harder to take part in school activities, and 94 per cent felt they were really a part of the school. The corresponding percentages among white vocational graduates were 18 per cent who thought it was harder to take part in the school activities and 84 per cent who felt a real part of the school. The data thus confirm the conclusion that nonwhites have positive feelings about their schools. As indicated above, the differences in racial composition of large and small cities cannot be used to explain the feelings of inferiority of the small city vocational students, despite the higher percentage of nonwhites in the larger cities.

In summary, the evidence on the graduates' feelings about their school experiences was not favorable to the comprehensive high school. The prevailing attitude in our society that the vocational curriculum is a second-class education seemed to be reflected in the comprehensive school. This attitude resulted in the strong tendency of vocational students to feel they were "looked-down on" by teachers and other students in the comprehensive school. Few of the graduates of vocational high schools reported these feelings. The frame of reference in which the graduates evaluated thier school experiences was offered as an explanation of this difference. The graduates of the vocational schools saw themselves in comparison to their vocational classmates. The graduates of the comprehensive schools saw themselves in comparison to the academic and general curriculum students.

Employment Experience

The preceding sections have indicated that comprehensive schools do not necessarily promote greater acceptance and understanding among the different groups of students. This section will examine the extent to which separate vocational high schools fulfill the claims made for them. Data on the first jobs the respondents held after leaving high school will be examined to determine if the advantages of the separate vocational high school produce better trained graduates. Consideration will be given to guidance, placement, adequacy of job preparation, employment experiences, and job satisfaction. The guidance the graduate received in choosing an occupation will be examined first.

While still in high school, only a third or less of the students of all curricula discussed their job plans with a guidance counselor. Table 8.12 shows the actual percentages.

For all three curricula the vocational schools in the large communities had a large proportion of graduates who reported discussions of job plans. The percentage recalling these discussions appears, therefore, to be more a function of city size than of type of school. Vocational graduates were the least likely to report discussions with guidance counselors. They may have discussed their plans with teachers, apprentice coordinators, or others, but apparently not with guidance counselors.

TABLE 8.12

Retrospective Evaluation of Guidance
Received on Job Plans

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
Ratings of Helpfulness						
Very-Quite	2	7	5	8	2	8
Moderate	8	9	9	15	11	14
Not Helpful	4	7	15	9	8	10
No Rating	1	3	3	1	1	3
No Guidance	85	74	69	66	79	66
Total	100	100	101	99	101	101
Number	257	612	118	267	195	298

Among those respondents who said they did talk with counselors, their rated evaluations of these talks were not quite as favorable as their evaluations of guidance on course choices. Only half of the small community academic graduates considered their discussions helpful. The percentage who considered their discussion helpful in the other groups ranged from 62 to 72 per cent.

The large city schools were more successful in placing their graduates regardless of curriculum as Table 8.13 indicates. The size of the city rather than the type of school, appears to be more significant in determining the success of school placement efforts.

The higher placement rates by schools in the large cities probably reflect the size of their labor markets where greater job opportunities exist and where informal sources of job referrals are not as effective. In the small communities families, friends, and relatives refer more graduates. These sources are not as effective as in the large cities; consequently, the schools play a larger role.

TABLE 8.13

Graduates Obtaining First Job Through
High School Placement

	Vocational Graduates		Academic Graduates		General Graduates	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
High School Placement	14	25	3	8	1	12
Number	222	565	102	254	165	282

The per cent of graduates who obtained at least one job also seems to be more a function of size of community than type of school. For all three curricula the large cities had more graduates who reported obtaining a job, and there were virtually no differences among the curricula from cities of the same **size.** The percentages in the two parts of Table 8.14, it should be noted, were based on two different N's. The per cent who obtained jobs was based on the total N for the group. The per cent who reported that one or more courses had helped to prepare them for their job was based on the N who obtained a job. These percentages for the vocational and general curricula were much higher in the large cities. But here again, size of community rather than type of school seems to be the crucial variable. In the large cities the general curriculum graduates attended academic high schools and the vocational graduates attended vocational high schools. Each curriculum had 20 percentage points more graduates from large cities who reported a helpful course. If the percentage mentioning a helpful course in the small communities is taken as an indication of the influence of the curriculum, it is clear that the vocational curriculum was seen as more helpful. However, it does not appear that the type of school, but rather the size of the community, was associated with a higher proportion of graduates reporting that their courses were helpful in obtaining a job.

TABLE 8.14

Graduates Who Obtained a Job and Reported
Course(s) Helped to Prepare

	Vocational Graduates		Academic Graduates		General Graduates	
Community Size	Small	Large	Small	Large	Small	Large
	%	%	%	%	%	%
Obtained a Job	90	95	87	97	88	95
Number	257	612	119	267	195	299
Course(s) Helped to Prepare as Per Cent of Those Obtaining a Job						
	%	%	%	%	%	%
Reported Course(s)	51	72	39	45	38	58
Number	231	581	104	259	172	284

The courses that were mentioned as helpful were largely predictable from the curricula that the graduates had taken. Vocational graduates mentioned shop courses, general graduates some academic and some shop courses, and academic graduates academic courses. Those graduates who mentioned a course or courses which had helped to prepare them for a job were asked to rate these courses on the five skill areas listed in Table 8.15.

The differences in ratings in Table 8.15 were also largely predictable from curriculum. Vocational graduates naturally received more training in use of equipment and job skills. But is there any evidence that type of school, as apart from curriculum and size of city, was associated with higher

TABLE 8.15

Mean Ratings of Preparation of High School Courses

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
			Mean			
Use of Equipment	4.8	5.2	3.0	3.3	3.3	4.4
Job Skills	4.7	5.2	3.5	4.2	3.9	4.4
Necessary Skills of -- Mathematics	4.8	4.7	4.7	5.4	4.6	4.6
Science	3.0	3.5	2.6	3.1	2.7	2.4
Communications	4.7	5.0	5.0	5.2	4.8	4.8
Number	116	420	41	117	66	164

ratings? The answer from these data is "no." In general, the large city graduates gave higher ratings, but this was true of all three curricula. The increases for vocational graduates, large over small communities, were no greater than the increases for the other curricula. From these ratings it does not appear that the separate vocational school was any more successful than vocational training in the comprehensive high school.

The data on the actual job experience did not show any sizeable differences associated with the separate vocational schools. Tables 8.16, 8.17, and 8.18 present the means for months worked, pay rates, and job satisfaction ratings.

TABLE 8.16

Mean Number of Months Worked in First Job

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
	15.6	15.8	11.9	12.9	16.0	15.2
Number	232	586	104	258	171	284

TABLE 8.17

Mean Pay Rate in First Job in Dollars Per Hour

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
Starting Rate	$1.26	$1.51	$1.31	$1.50	$1.27	$1.45
Leaving (Or Current) Rate	1.57	1.82	1.52	1.73	1.54	1.64
Number	224	582	99	256	161	284

TABLE 8.18

Mean Ratings of Satisfaction in Five Job Areas

	Vocational		Academic		General	
Community Size	Small	Large	Small	Large	Small	Large
Job Area						
Work	5.0	4.9	4.8	4.4	4.8	4.7
Pay	3.7	4.0	3.8	3.5	4.0	3.9
Promotion	3.2	3.7	3.4	3.5	3.4	3.5
Supervision	4.9	5.2	5.0	4.9	4.1	5.0
People	5.9	5.9	5.7	6.0	5.7	5.8
Number	230	575	103	256	171	279

There was no clear pattern in any of these measures that was associated with the separate vocational schools. It is true that graduates in the large cities received higher wages, but this was true for all curricula. For the months worked and satisfaction measures there were no apparent patterns associated with either city size or curriculum. If the separate vocational schools did produce better trained workers, the differences were not reflected in these measures.

Summary and Conclusions

Data were examined that were relevant to the claims made both for the comprehensive high school and for the separate vocational school. These comparisons were possible because the vocational graduates from the three small communities attended comprehensive schools while the vocational graduates from the large communities attended separate vocational schools. The academic and general curricula graduates from the large communities attended academic high schools. When the graduates of all three curricula were compared some significant differences were found between the vocational graduates of large and small communities. Such differences were not found for the academic and general curricula graduates. Thus, the differences probably were associated more with the type of school rather than with other city-size factors.

Vocational graduates of comprehensive high schools were over six times as likely to say they felt "looked-down on" as graduates of separate vocational schools. Replies to other questions concerning feelings of exclusion and condescension among vocational students in comprehensive schools confirmed this finding. Comprehensive schools clearly were not fostering attitudes of understanding and acceptance among all segments of their student populations.

The separate vocational schools did not appear to be fulfilling all of the claims made for them. These claims usually refer to the more adequate training a vocational school can provide. None of the indices of employment experience substantiated these claims. In general, the graduates of the separate vocational schools rated their preparation a little higher than the vocational graduates of the comprehensive school. The difference in the ratings, however, was not any greater than the differences of the large community graduates from the other two curricula over the small community graduates. Hence, one cannot conclude the differences are associated with the type of school more than with size of city. The same type of relationships held for the other indices such as months of work, pay, and job satisfaction. The vocational graduates of the separate schools did not have an advantage over the vocational graduates from the small communities any greater than the advantage of the large community graduates over the small community graduates from the other curricula.

In summary, it can be said that the graduates of the separate vocational schools did look back on their high school experiences more favorably, but they did not appear to be better trained or have more successful work experiences than the vocational graduates of comprehensive schools.

CHAPTER 9

THE NEGRO AND VOCATIONAL EDUCATION

Introduction

No evaluation of the adequacy of high-school vocational training would be complete without recognizing the unique character of participation by Negroes in the education system and the special problems they face. It is well known that the Negro student is treated differently within the school milieu itself, as well as being confronted with a special environmental complex in his non-school activity.

This chapter focuses on the experiences and attitudes of the Negro graduates. This introductory statement includes a discussion of some of the individual and environmental differences found in a comparison of the Negro and white students. Section I describes and analyzes the experiences and attitudes of those Negro and white respondents who had graduated from the vocational curriculum. This evaluation, however, fulfills only part of the desired objective, which is a comprehensive statement of the adequacy of vocational training for Negroes. The latter necessarily involves an analysis of the graduates from the three major curricula. Therefore, Section II includes two types of comparative presentations. An inter-curriculum analysis among Negroes is introduced to emphasize the comparative attitudes and experiences of Negro graduates from each of the three curricula. A second type of comparison -- between Negro and white graduates -- is included so that statements about relative advantages and disadvantages can be made. For instance, the data show that the average Negro graduate from the vocational curriculum received earnings closer to the earnings of whites than did Negro graduates from either of the other two curricula, even though all three Negro groups received average earnings lower than whites. Finally, Section III presents a summary of the chapter and reviews the conclusions reached.

Since the absence of differences among graduates from the respective curricula may be just as important as observed differences, some factors are included for which responses indicated comparable experiences or attitudes.

The personal and environmental factors discussed immediately below should be borne in mind when interpreting the data presented in subsequent sections of this chapter. On the one hand, it is quite apparent that such factors as the occupation of the head-of-household and the family income influence the attitudes and experiences of children growing up in a given social context. On the other hand, no consistent relationships were found between measured IQ score of a graduate or the size of the city in which he lived, and his attitudinal or performance measures. Therefore, after the differences between the Negroes and the whites in these characteristics are explored, subsequent analysis does not control for their influence, with two exceptions. The comparative analysis of earnings includes only those graduates interviewed in the three large cities for reasons to be explained below. In addition, a highly controlled analysis of the graduates from specific vocational programs in one of the large cities is included in Section I. This analysis includes only those graduates having measured IQ's falling in the range of 90-109.

The proportion of the total Negro sample which was derived from the three large cities is substantially greater than that for the white sample (see Table 9.1). A number of Negro graduates from the general curriculum in one of the middle-sized cities is included in the sample so that the large city concentration of Negroes for that curriculum is smaller than that for the other two curricula.

The substantially higher concentration of Negroes in the large cities when compared to the white distribution necessitates a modification in the analysis of earnings because it is well known that wage rates in large metropolitan labor markets are higher than in less populous areas. Preliminary analysis of other variables controlled for city size did not bring out a consistent relationship between size of city and the attitude or experience being observed. Therefore, in the analysis that follows, other than that of earnings, the size of city variable is not introduced as an independent (control) element. In the case of earnings only large city graduates are included in the analysis.

The distribution of IQ scores for the Negro sample was found to be skewed toward the low end to a greater extent than that for the white sample (see Table 9.2).

It is emphasized that the decision not to control for IQ in the analysis that follows was made after the preliminary controlled analyses did not reveal consistent relationships.

TABLE 9.1

Per Cent of the Total Sample from Large Cities, by Curriculum, Sex, and Color

		Vocational		General		Academic	
Male		N	%	N	%	N	%
	White	432	46.4	209	36.5	198	44.3
	Negro	187	86.9	87	67.4	67	84.8
Female							
	White	345	47.3	265	25.9	149	38.8
	Negro	160	85.1	175	65.0	75	73.5

TABLE 9.2

Distribution of Measured IQ Scores,
by Curriculum, Color and Sex

	Under 90		90-109		Over 109		
Male	N	%	N	%	N	%	N
Vocational							
White	112	16	460	66	124	18	696
Negro	49	36	82	61	4	3	135
General							
White	57	15	256	65	78	20	391
Negro	26	37	40	57	4	6	70
Academic							
White	16	5	136	47	140	48	292
Negro	19	36	25	47	9	17	53
Female							
Vocational							
White	78	16	312	62	111	22	969
Negro	34	32	72	68	-	-	106
General							
White	92	12	486	65	175	23	753
Negro	49	30	107	65	8	5	164
Academic							
White	9	3	113	41	151	56	273
Negro	13	19	45	67	9	14	67

A very important determinant of the socio-economic environment in which a child matures is his (her) father's occupation. The occupation is obviously important as a source of income, and for male youth it has also been shown in other studies to have a major influence as part of the role model to be emulated (or not). It should be noted, however, that in a substantial number of cases the father is not present in the home or is not employed. In such instances a father-substitute must be introduced. In some cases the source of income-substitute may become the state. When this occurs (and it may occur even when the father is present, but not employed) no occupational role model is presented to the child in the immediate home environment.

Data on the occupations of interviewees' fathers are shown in Table 9.3.

The substantially larger proportions of male Negro graduates from the general and academic curricula whose fathers were not present when compared with graduates of the other ten categories cannot be explained by other information collected in this study. Major differences in the "father not present" category do not appear in the other four Negro - white comparisons. This does not accord with the findings of other studies of Negro family structure. The reason probably lies in the fact that this study included only high school

TABLE 9.3

Occupational Distribution of the Graduates' Fathers*, by Curriculum, Sex, and Color

	Male						Female					
	Vocational		General		Academic		Vocational		General		Academic	
	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro
	%	%	%	%	%	%	%	%	%	%	%	%
White Collar:	23	10	25	12	37	15	24	8	21	10	42	24
Professional, Technical, Managerial & Other	13	4	17	7	24	6	16	5	12	4	28	17
Clerical & Kindred	5	5	3	4	7	8	4	2	5	5	6	5
Sales & Kindred	5	1	5	1	6	1	4	1	4	1	8	2
Service:	5	8	8	14	6	13	7	7	6	12	5	7
Manufacturing:	65	72	61	58	53	54	62	77	65	65	49	61
Specific Skill	30	15	31	13	26	39	28	16	28	14	23	18
Non-Specific Skill	35	57	30	45	27	15	34	61	37	51	26	43
Unemployed:	3	4	2	3	2	6	2	3	3	5	1	3
Not Present:	4	6	4	13	2	12	5	5	5	8	3	5
Number	680	155	411	87	328	60	528	126	734	186	284	74

*--The respondents were asked,"What was your father's occupation when you were in high school?"

graduates whose home environments differed from that of the general Negro population. The data in Table 9.3 are indicative of the different role models which confronted the Negro and white graduates. A substantially larger share of the fathers of Negro graduates were employed in service sector jobs. In all instances, except for male Negro graduates from an academic curriculum, the fathers of Negro graduates were more heavily represented than whites in the non-specific skill classification of the manufacturing sector. Conversely, in every intra-curriculum Negro-white comparison the fathers of white graduates were twice as heavily represented in the white-collar sector. These relationships have obvious socio-economic implications for the respective groups.

In addition to the indirect occupational measure of economic status, data were also obtained on family income at the time the respondent was in high school. The data derived are shown in Table 9.4.

A number of interesting relationships appear in this table. The only case in which the average (mean) family income of Negroes approached that of whites was for male graduates of the vocational curriculum. The explanation appears to lie in the socio-economic determination of who enters the vocational curriculum. The average family income of whites who pursued the vocational curriculum was far lower than that of graduates from the academic curriculum, while the average family income of male Negro graduates from the vocational curriculum was the highest of the six sex-curriculum categories. It would appear, then, that the socio-economic "elite" among the white students pursue an academic curriculum, while the Negro youngster from the higher income strata among Negroes would take a vocational curriculum. From another perspective, there is some evidence that the Negro youngster faces special barriers in entering the vocational curriculum, so it may be that only the "elite" are accepted. To the extent that family income measures status these are reinforcing explanations of the observed income relationships. The average

Table 9.4

Average (Mean) Family Income While Respondent was in School,
by Curriculum, Sex, and Color

	Vocational	General	Academic
Male			
White	$6562	$6662	$7814
Number	(667)	(408)	(345)
Negro	$6362	$5523	$6019
Number	(152)	(88)	(52)
Female			
White	$6675	$6527	$7716
Number	(378)	(577)	(236)
Negro	$5545	$5716	$5807
Number	(112)	(194)	(57)

family income of female Negroes was substantially lower than that of their white counterparts in each curriculum comparison. In all cases it is important to recall that these income figures refer to the family income while the interviewee was in school, and not income earned by the graduates themselves after graduation. This income information is relevant, then, as one measure of the socio-economic environment within which the curriculum and occupational choices were made.

The family income figures should be accompanied by some indication of the number of employed people in each household. Table 9.5 below indicates the proportion of mothers of the graduates who had worked full- or part-time while the respondent was in school.

The most significant finding is that a substantially larger proportion of the mothers of Negro graduates had worked full-time, even though average Negro family incomes were lower than white incomes in every comparison. One can only speculate about the role-model effect of the working mother on female students' curriculum and occupational choice.

This introductory section has presented a comparison of the Negro and white graduates with regard to geographic location, measured IQ, and selected socio-economic measures. The Negro graduates were found to be more heavily concentrated in the large cities and the implications of this were pointed out. The distribution of measured IQ's of the Negroes was skewed toward the lower end of the scale, but no consistent relationship was found between this and other variables. The occupational distribution of the fathers of Negro graduates was found to differ rather markedly from that of the white graduates, being more heavily weighted toward the service and non-specific skill manufacturing occupations. The average level of family incomes of the Negro sample was found to be lower than that for whites and the differences in the gap

Table 9.5

Proportion of Mothers Who Worked Full- or Part-time While Respondent was in School, by Curriculum, Sex, and Color

	Vocational			General			Academic		
	Full-time	Part-time		Full-time	Part-time		Full-time	Part-time	
	%	%	N	%	%	N	%	%	N
Male									
White	32	11	(912)	32	11	(556)	33	13	(431)
Negro	49	9	(200)	42	9	(122)	50	18	(71)
Female									
White	34	12	(715)	36	13	(997)	33	11	(376)
Negro	47	7	(169)	43	15	(255)	41	15	(102)

were explained by relative ease of entry and image of the respective curricula among the Negro and white groups. Finally, the proportion of mothers who worked while the graduates were in school was introduced as an indication of the significance of the income gap. All of these aspects of the graduates' non-school life during the high school years should be borne in mind throughout the next two sections.

Section I, following, deals with the attitudes and employment experiences of the Negro and white graduates from the vocational curriculum only. This approach was taken before discussing the more complex comparison among curricula as well as color. Thus, Section I answers the question "what differences are found between Negro and white graduates from a vocational curriculum?", while Section II answers the question "how do Negroes who graduated from the vocational curriculum fare relative to those who graduated from the other curricula, and relative to comparable white graduates?"

SECTION I: ATTITUDES AND EMPLOYMENT EXPERIENCES OF NEGRO VOCATIONAL GRADUATES

Curriculum Choice and Evaluation of Preparation

Reasons for Selecting a Vocational Curriculum. The large differences in the socio-economic background of Negroes and whites as indicated by the occupations of fathers, family income, and proportion of employed mothers, were not reflected in the responses to the questions on curriculum choice. There were differences, of course, but they were not as pronounced as the difference in socio-economic status would lead one to expect. Table 9.6 presents the reasons the respondents volunteered in response to the question: "Why do you think you chose the courses you took in high school?"

Table 9.6 does show more Negro than white males selected courses "to prepare for a job." However, the relationship was reversed for the females. In general, Negroes did not appear to be more concerned than whites about their employment potential. The Negro students saw themselves as being motivated by much the same type of plans as the white students.

The same percentage of Negro and white males reported following their high schools' suggestions in the selection of courses. The percentage is low, only five per cent. In some cities the evaluation team found that school officials, at times, persuaded Negroes not to select certain vocational programs. These officials explained this practice by saying it was impossible to place Negroes in certain trades. The interview data show, however, that approximately equal proportions of Negroes and whites were encouraged to follow the vocational curriculum. Any Negro who was dissuaded, of course, would not appear as a vocational graduate. Evidence of special school pressure on Negroes not to follow a vocational program is revealed by a disproportionate share of Negroes who took the general curriculum at the schools' suggestion. These data will be examined in more detail in Section II where the experiences of Negro graduates from all three curricula are compared.

TABLE 9.6

Reasons Given by Respondent for Choosing
Vocational Curriculum, by Sex and Color

	Male		Female	
	White	Negro	White	Negro
	%	%	%	%
Prepare for Job	24	34	53	45
Interest	41	39	15	29
Prepare for Future	13	9	13	12
Prepare for College	1	--	2	2
Prepare for other Post-Sec.Educ.	1	1	2	5
School's Suggestion	5	5	3	5
Outside Pressure	5	3	4	2
Easy	3	2	2	2
Miscellaneous	7	6	5	3
Don't Know	--	1	1	--
Number	931	211	716	179

Another criticism -- the direct opposite of exclusion -- is also often made about vocational education. The schools are accused of using the vocational curriculum as a "dumping ground" for students of less ability. The small percentage of both races who recalled choosing their curriculum as a direct result of school suggestions argues against those who make this charge. Few graduates of the vocational curriculum recalled the school as the major influence on their decision. They reported reasons that indicate vocational education was congruent with their own plans. These self-perceived reasons may have been only the respondents' rationalizations of subtle school pressures. But if they were rationalizations they were expressed in about equal frequency by both ethnic groups. From these results, a case cannot be made that Negroes, any more than whites, were being shunted into vocational education.

In light of the highly similar reasons for course choice given by Negroes and whites, what were their job plans while in school? Were these plans as similar as their reasons for course choices? As Table 9.7 indicates, the plans of the Negro respondents were oriented less to the professional - managerial area and more to the manufacturing - processing area.

TABLE 9.7

Type of Job Wanted While Still in High School, by Sex and Color

(Vocational Graduates Only)

	Male		Female	
	White	Negro	White	Negro
	%	%	%	%
White collar:	36	26	77	57
Professional, Technical, Managerial, and Kindred	28	18	9	10
Clerical	7	7	67	47
Sales	1	1	1	--
Service:	1	2	18	14
Manufacturing and Processing:	63	72	5	29
Number	789	173	648	158

Given the distribution of Negroes in the labor force, these plans seem to reflect a realistic assessment of opportunities. The plans might even be considered optimistic. It must always be kept in mind, however, that these respondents were high school graduates. Their continuation in school to graduation reflects an ability level and value structure that were congruent with the demands of their schools. Since schools reflect the prevailing values of society, it is quite reasonable to assume that the goals of the Negro graduates were similar to those of the whites.

The occupational distribution in Table 9.7 is based only on those respondents who reported having a job plan while in high school. Substantial percentages (the bottom line of Table 9.7) said they had no idea, while in high school, of what they wanted to do after graduation. More Negroes than whites and more males than females were undecided. Once again, however, the differences are not as large as might be expected considering the uncertainties many Negroes face in the labor market.

Evaluation of High School Preparation. In general, both groups had similar types of goals during their high school days. How well did their schools help them to achieve these goals? This section discusses three questions that the graduates answered concerning the adequacy of their testing. All of these questions were written so that the respondents evaluated their training from their own frame of reference. The analysis compared the responses of Negroes and whites in terms of how well each group felt it was prepared. In general, there were few differences between them in these responses. From their own frame of reference respondents from each group tended to evaluate their preparation similarly. Whether or not the Negroes' preparation was the equal of the whites', the Negroes believed it was.

The first question the respondents were asked, to elicit an evaluation of their high school preparation, was simply whether they thought their high schools had made a real effort to prepare them for a job. The responses, which are shown in Table 9.8, were nearly identical. Nearly nine out of ten of the vocational graduates, both male and female, believed their schools had made a real effort.

Another question was asked in a context of the details of the first full-time jobs the respondents had held. The respondents were asked if any of the courses they had taken in high school had helped to prepare them for these jobs. If the answer was yes, they were asked to rate these courses on five dimensions: use of equipment, job skills, and the skills the job required in mathematics, science, and communications ability. The respondents were instructed to use a seven-point scale with "one" defined as very little preparation and "seven" defined as excellent preparation. Table 9.9 shows the median ratings as well as the per cent of respondents who said their courses helped to prepare them for their first jobs.

The median ratings of both ethnic groups and sexes were in the range defined as favorable. There were no consistent differences in favor of either one. Proportionally more Negroes than whites, however, and more females than males reported their courses helped to prepare them for their first job.

The third question used to assess the attitudes of the respondents towards their preparation was somewhat more indirect. Each respondent was asked if he (or she) would suggest to a young person just starting high school that he (or she) take the same courses the respondent took. If the reply was, "It depends on the person," the interviewers were instructed to reply, "Well suppose he (she) were pretty much like you at that age."

TABLE 9.8

Schools' Effort to Prepare Graduates For a Job,
by Sex and Color
(Vocational Graduates Only)

	Male		Female	
	White	Negro	White	Negro
	%	%	%	%
School Made Effort	85	86	86	88
School Did Not	13	10	13	9
No Answer-Don't Know	2	4	1	3
Number	934	214	719	185

TABLE 9.9

Median Ratings of Preparation for First Job
by Sex and Color

(Vocational Graduates Only)

	Males		Females	
	White	Negro	White	Negro
Use of Equipment	6	5	6	6
Job Skills	5	6	6	6
Necessary Skills of - Mathematics	5	5	5	5
Science	3	4	1	2
Communications	5	6	6	6
Number	573	144	555	147
	%	%	%	%
Per cent Respondents Reporting Courses Helped to Prepare	62	66	78	81

The question was intended, of course, to have the respondent comment on how correct his choice of curriculum had been. If the respondent advised a young person to follow the same curriculum that he, the respondent, had taken, it seemed reasonable that he was relatively satisfied with his choice. If he advised a young person to follow a different curriculum, it was concluded that he did not feel the curriculum had met his needs. Table 9.10 lists the most frequent replies of the vocational graduates.

TABLE 9.10

Most Frequent Advice to a Young Person Just
Starting High School by Sex and Color

(Vocational Graduates)

	Male		Female	
	White	Negro	White	Negro
	%	%	%	%
What I Took	52	43	68	64
Academic Curriculum	15	8	9	12
I Made Wrong Choice	6	1	6	2
Depends on Person	8	21	7	17
Number	934	212	723	185

On this question, Negroes appeared slightly less satisfied than the whites. Negroes also tended to avoid the question more frequently. Despite the prompting of the interviewers, Negroes were more likely to insist the decision was too dependent on the person to permit generalization.

On two of the three questions, then, Negroes responded in a manner fully as favorable as the whites. On one of the three, Negroes were not quite as favorable. In general, though, Negroes who received vocational training believed they were as qualified as their white counterparts in the skills they studied. It is not necessarily true that some other evaluator, such as an employer or school admission officer, would conclude both groups were equally qualified. The point is that Negroes believed they were. If they find themselves unable to obtain jobs for which they believe they are qualified, they will quite naturally experience feelings of discrimination and frustration.

Such feelings may account for the slightly lower feelings of satisfaction evident in the question on advice to a young person. A relatively high percentage of Negroes refused to recommend a vocational curriculum; they insisted the choice depends on the person. Such a response would be consistent with the experience of a person who believes he has been well trained but finds himself unable to obtain the type of job he wants. The detailed analysis of the vocational graduates from a specific city, presented in the next section, indicates that failure to find training-related occupations was more common among Negroes than among whites.

The Vocational Graduates' Employment Experiences

Jobs Obtained Compared With Jobs Wanted. Data on the types of jobs wanted by the vocational graduates while they were in school were presented in the preceding part of Section I. An overwhelming majority of the graduates were shown to have thought that their schools made a real effort to prepare them for employment. The obvious question remaining, then, is what types of jobs did they actually secure? Given the graduates' expressed preferences, and their apparent satisfaction with the preparation received, did they achieve their initial goals? The study of employment experiences is based on the first job because the major influence of the school experience on subsequent employment experience is brought to bear at this point of entry into the labor force. Table 9.11 compares the jobs wanted and those obtained by each color-sex group. Substantial differences are revealed in the respective experiences of the white and Negro graduates.

The comparative distributions are strikingly similar for the white graduates of both sexes. One-third of the white males had wanted and actually obtained white collar jobs, although the actual distribution was more heavily weighted with clerical jobs, as would be expected rather than higher level professional and sub-professional occupations. Nearly two-thirds of the white males who had graduated from a vocational curriculum wanted to and did enter the manufacturing and processing sector.[1]

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[1] The relationship between training received in school and job title is discussed more fully at the end of this section.

TABLE 9.11

Occupational Distribution of First Jobs Compared with Types of Job Wanted, by Sex and Color (Vocational Graduates Only)

	Male				Female			
	White		Negro		White		Negro	
	Wanted	Actual	Wanted	Actual	Wanted	Actual	Wanted	Actual
	%	%	%	%	%	%	%	%
White Collar:	35	34	27	25	78	75	67	48
Professional, Technical, Managerial	27	14	18	8	8	4	11	5
Clerical	6	17	7	14	69	64	55	39
Sales	2	3	2	3	1	7	1	4
Service:	2	5	2	20	16	14	13	22
Manufacturing & Processing:	63	61	71	55	6	11	20	30
Specific Skill		25		19		3		7
Non-Specific Skill		27		29		8		21
Apprentice		9		7		---		2
Number	747*	852	164*	193	647*	673	152*	176

* -- Includes only those who specified the type of job wanted.

Three-fourths of the white females who had graduated from a vocational curriculum wanted and secured white-collar jobs. A total of 85 per cent of these were in clerical occupations. Again, this is not an unexpected finding. Only five per cent of these girls had wanted manufacturing sector jobs, but actually 11 per cent went into this sector.

The service sector attracted very few white males, and an even smaller number wanted jobs in this sector. The "wanted-secured" relationship was just the opposite for white females, with a greater proportion having wanted service sector jobs than actually obtained them.

The comparative Negro occupational distributions were quite different. Far fewer male Negroes secured manufacturing sector jobs than had expressed a preference for such employment, while a substantially greater number were employed in the service sector than had wanted those types of jobs. The distribution of jobs obtained by Negro girls was more heavily weighted toward both the service and manufacturing sectors than the distribution of types of jobs wanted, at the "expense of" the white-collar sector.

Comparisons between the color groups show that a much larger share of male Negroes were placed in the service sector than were whites, although identical proportions had wanted jobs in this sector. Conversely, while a larger share of the male Negroes wanted jobs in the manufacturing and processing sector than did whites, a smaller proportion of Negroes actually obtained such jobs. Within the manufacturing sector the relative concentration of male Negroes in the specific skill category is smaller than that of white graduates. Female Negroes were found far less frequently than whites in the white-collar (primarily clerical) sector and more often in manufacturing and processing occupations.

These data strongly suggest that training per se is not a sufficient condition for equality of opportunity. Even allowing for differences in interest, motivation, or specific skill-training received, the distributions of jobs secured by whites and Negroes are too dissimilar (especially when compared to types of jobs wanted) to avoid the implication that Negroes do not have access to the same jobs as do whites. Later in this section a segment of the total study sample is presented in order to control more adequately for factors other than color.

It is concluded, then, that while a strong similarity exists between types of jobs wanted and types of jobs actually obtained by whites, the relationship is not as clear in an analysis of the Negro occupational distributions.

Reasons For Limited Opportunity For Negroes. The introductory section of this chapter included a discussion of the influence environmental factors had on the attitudes and experiences of the graduates. One aspect of the limited economic opportunity confronting Negroes, which is affected by these environmental factors, is access to, and use of, means to secure jobs. Private employment agencies, tests and testing procedure, personal application, and restricted opportunity through family and friends have all been cited as discriminatory barriers to equal occupational status for Negroes. Since the sample for this study was homogeneous in terms of the level of educational attainment, it is of interest to see how the white and Negro graduates obtained their first full-time jobs. Is the method of job acquisition a major factor in explaining the differential occupational distributions of the respective groups? Table 9.12 presents the findings relevant to this question.

TABLE 9.12

How First Full-Time Job Was Obtained,
by Sex and Color

(Vocational Graduates Only)

	Male		Female	
	White	Negro	White	Negro
	%	%	%	%
Direct Application	35	33	33	28
Personal or Family Friend	24	28	19	22
School Placement	26	17	23	24
Employment Agency	7	6	14	10
Examination	--	4	3	7
Newspaper Ad	4	8	6	6
Miscellaneous	4	4	4	3
Number	867	196	679	175

It should be noted that these data have reference only to how a job was obtained and that no information is given concerning methods of job search used unsuccessfully. The general conclusion to be drawn from the responses tabulated in Table 9.12 is that Negro and white graduates use particular methods successfully with approximately equal frequency. Negro males were less frequently placed through the auspices of their schools than were comparable whites. This supports the contention that the job placement function within the school (both formal and informal) is not equally accessible to all students. This situation is found because of both internal and employer-demand factors.

At least one-half of all vocational graduates secured their jobs through their own devices, either by personal application or prior friendship. This is true for each of the four sex-color groups. The probability of misallocating human resources is high under these circumstances because of the previously mentioned limited occupational knowledge among youth. Individual responsibilities increase quickly after entrance into the labor force, thereby further limiting mobility and freedom to accept risks in employment. It is essential, therefore, that the initial bridge between skill acquisition and utilization be structured to funnel efficiently the graduate into the proper job.

It is concluded from these data that, while inefficient, the methods used successfully by the graduates to obtain jobs do not explain the major differences found between the Negro and white graduates in the distribution of jobs by occupational sector.

Wage Rates on First Job. It was pointed out in the introductory section of this chapter that the Negro sample was more heavily concentrated in the large cities and that a control for city size would therefore be introduced in the discussion of wage rates to isolate more effectively the effect of color on earnings. Table 9.13 shows the average (median) starting and leaving (or current) wage levels for the first full-time job for the white and Negro graduates from a vocational curriculum who were interviewed in the three large cities.

Since the occupational distribution of Negroes is skewed more heavily than that of whites toward the lesser skilled blue-collar and service sector jobs, one would expect the wage rates of Negroes to be lower. The median starting wage is seen to have been ten cents higher for the white graduates, both male and female, than for the Negroes, with the male wage level exceeding the average female wage rate by ten cents for both Negroes and whites. The same relationships hold in a comparison of leaving (or current) wage rates, but the magnitudes of the differences are greater. The average wage for whites exceeded that of Negroes by twenty cents, while the male levels exceeded the female average by twenty cents for both color groups. In absolute terms, then, the gap between Negro and white has doubled in this short period of time.

This partially vitiates the argument that the Negro receives lower starting pay because he is less likely to have received skill-training comparable to that of the vocationally trained white, but that once hired the Negro can be judged on performance alone and the wage gap based on an initial competitive disadvantage will be eliminated. The control on educational qualification, however, is not complete, since the Negroes and whites had graduated from different schools (in most cases) and had taken different skill-training programs in many cases. For this reason the labor input is not necessarily a homogeneous unit embodying equal productive potential and, therefore, commanding equal remuneration. In addition, in the first job the educational system's contribution to productivity is still relatively high in comparison to experience gained on the job, so that wage increments are still heavily dependent on factors exogenous to the employment situation per se.

TABLE 9.13

Starting and Leaving (or Current) Pay on First Job
for Vocational Graduates From the Three Large Cities,
by Sex and Color

	Male			Female		
	Start	Leave	Number	Start	Leave	Number
White	$1.40	$1.70	392	$1.30	$1.50	302
Negro	1.30	1.50	163	1.20	1.30	141

The point was made in Chapter 6 that wage increments must be related to a time dimension to be meaningful, but that a time-adjusted index would not be sufficiently sensitive in this case to increase understanding of the relative progression of white and Negro earnings. Therefore, following the procedure of Chapter 6, the average length of time spent on the first job is shown in Table 9.14.

A comparison of the Negro and white data leads to the conclusion that each group was employed for approximately the same length of time and that, therefore, the time factor does not explain the observed difference in wage rates between the color groups. In addition, since the females had been employed in their first job for a longer period of time, on the average, the time-adjusted wage differential between males and females would be greater than that shown in Table 9.13.

It is concluded from the data shown in Tables 9.13 and 9.14 that the Negro graduate from a vocational curriculum does not receive the same level of compensation in the first job, either at the inception or thereafter, as does his white counterpart. Therefore, while it was shown in Chapter 6 that a white graduate from a vocational curriculum does not have an advantage over white graduates from the other curricula in the wage level paid on the first job, he does have an advantage over a vocationally trained Negro graduate. An intercurriculum comparison of the wage rates of Negro and white graduates will be deferred to Section II of this chapter where the relative advantages and disadvantages of Negro participation in vocational education are discussed.

Satisfaction With the First Job Experience. Satisfaction with a given job is a two-way street. The satisfaction of both the employed and the employer is relevant.

There are numerous ways of measuring job satisfaction. This study included self ratings and a standardized measure of five elements of satisfaction, a supervisor's rating scale, information on why graduates left jobs, and data on the length of time spent in their jobs.

The length of time spent in a job is a function of individual satisfaction, employer satisfaction, and the presence of alternatives. The absence of differences between Negroes and whites in the average length of time spent in the first job (shown in Table 9.14)does not, therefore, necessarily indicate equality of satisfaction with present status. It is necessary to discuss each of the component elements of the job tenure situation.

TABLE 9.14

Average Number of Months Worked in First Job*
by Vocational Graduates, by Sex and Color

	Male		Female	
	White	Negro	White	Negro
Median (Months)	12.0	12.0	13.0	14.0
Mean (Months)	15.9	15.5	18.6	17.7
Number	410	174	330	155

* -- it should be noted that these data include those individuals who were still employed in the first job at the time they were interviewed. In that case the wage figure is the rate being earned currently (at the time of interview) and no bias is introduced into the calculation.

The aspect of job tenure on which no information was collected directly was the existence of alternative employment opportunities. On the basis of the analysis and findings of other studies it can be stated with a high degree of confidence that the alternatives available to Negroes were both quantitatively and qualitatively inferior to those confronting whites.

Individual self-fulfillment is one goal of any education process, as well as of the employment situation itself. Therefore, it is important to know how individuals perceive their own job situations. Do Negroes, for example, think that they have less opportunity than whites? Each respondent in the study rated his satisfaction with several aspects of each job. Table 9.15 presents the data from these ratings for the first job for vocational graduates.

Real dissatisfaction was found only in the promotional opportunity category for Negro females. The other groups rated their pay and promotional opportunities at the defined mid-point (4) between satisfaction and dissatisfaction. The absence of differences between the color groups should not be interpreted to mean actual differences do not exist in these job aspects. On the one hand, the Negro employees might be equally satisfied with less desirable job tasks because of traditional opportunity barriers. Job satisfaction is closely related to levels of aspiration which typically result from reference group norms. Hence it is a relative concept. On the other hand, recent publicity about the prevalence of discrimination may result in a lower satisfaction rating by the Negro for equal pay or identical job tasks because of a new perception of the opportunity structure. It is not possible to control for these factors in this analytical framework, but the area appears to be a fruitful one for further research.

It is concluded that the average Negro graduate from the vocational curriculum does not perceive himself to be disadvantaged in the aspects of job satisfaction measured in Table 9.15, except that it is apparent that the female Negroes do perceive a barrier to promotional opportunity relative to white girls. Thus, if the qualitative and quantitative aspects of employment alternatives favor the white graduate, the Negro male does not see it, or -- and this is a very likely alternative -- he sees the situation, accepts it as given, and is "satisfied" with it.

The measure of employer satisfaction used in this study had reference to the last (or current) job held by the respondent. The instrument used was administered to the immediate supervisors of the graduates. The immediate supervisor of about 60 per cent of the respondents rated them on six aspects of the job situation -- occupational knowledge, manipulative skills, personal and social qualities, work qualities and habits, overall preparation, and overall performance. The data on each of these measures of the job situation show virtually no differences between the assessments of Negroes and whites by their immediate supervisors.

In summary, the Negro and white graduates themselves differ very little in satisfaction measures of the first job experience, their supervisors do not differentiate between them in terms of preparation and performance, and they remain in their jobs for approximately equal lengths of time. The one remaining measure of job satisfaction was derived from the reasons given by the graduates for leaving their first job.

TABLE 9.15

First Job Satisfaction, by Sex and Color
(Vocational Graduates Only)

	Male		Female	
	White	Negro	White	Negro
Type of Work	5	5	6	5
Pay	4	4	4	4
Promotional Opportunity	4	4	4	3
Supervision	5	6	6	5
People Worked With	6	6	7	6
Number	882	188	687	174
7 - Point Scale	1 - 3 Dissatisfied			
	4 Average			
	5 - 7 Satisfaction			

A majority of the vocational graduates interviewed had held more than one full-time job. Table 9.16 classifies the responses given into six categories.

TABLE 9.16

Reason for Leaving First Job, by Sex and Color

(Vocational Graduates Only)

	Male		Female	
	White	Negro	White	Negro
	%	%	%	%
Still Employed* 1st Job	(35)	(54)	(41)	(47)
Advance Within Company	16	9	20	11
Got a Better Job	23	37	15	29
Dissatisfaction	23	12	25	21
Employer Action	18	17	11	8
Returned to School	5	8	4	7
Other	15	17	25	24
Number	560	88	401	90

* -- Per cents are figured on the basis of those who did leave the first job, except for this proportion which is based on the total number who responded.

A number of differences appeared. A larger percentage of male Negroes were still employed in their first jobs than were their white counterparts. This finding supports the contention that fewer alternative opportunities were available for Negroes or that they were more satisfied. Fewer Negroes of both sexes left their first jobs through promotion or transfer within the employing firms. However, a smaller percentage of Negroes of both sexes were fired, terminated, had their job abolished, or were themselves sufficiently dissatisfied to quit. Very small numbers in any group quit their job to return to school.

As is indicated in the table, a substantial proportion of the graduates were sufficiently disenchanted with their job experience to terminate employment. The fact that twice as large a proportion of white males quit because of dissatisfaction than did Negroes may also be indicative of the relative alternatives available to the two groups. The relatively small proportion of the graduates who lost their jobs through employer-initiated action is indicative of the high degree of employer satisfaction with the employees' preparation and performance. This also supports the findings from the administration of the supervisor's rating scale instrument. It is interesting to note that the difference in the proportions of Negroes and whites who were promoted internally was approximately equal for males and females (with the white proportion being twice as large as the Negro share), but only the female ratings indicated a perceived barrier to promotional opportunity.

The analysis of the graduates' employment experiences considered up to this point paints a picture of varied hues. In comparisons of Negroes and whites it was found that the observed occupational distributions differed substantially; the methods successfully used to secure these jobs differed very little; the average Negro wage level was lower than that of the whites; and finally, the measures of satisfaction indicated broad areas of comparability with an apparent perception of promotional barriers by the female Negroes.

A Comparison of Graduates from Eight Vocational Programs in One Large City

Because of this varied pattern of similarities on some measures and differences on others a detailed analysis was made of the relationship between training and the jobs secured by graduates from specific vocational programs and of the comparative wage levels received by these graduates. Negro and white graduates of vocational programs in one city out of the nine were selected. Only those graduates for whom a measured IQ score falling in the range 90-109 had been recorded were included. This sequential stratification procedure resulted in small N's in some instances. Therefore, the findings discussed in the following section should be interpreted as being indicative of probable relationships among variables, rather than as findings that can be extrapolated to the general population. Each of the following subject areas will be discussed individually: for males - electronics, auto mechanics, printing, carpentry, machine shop, electricity; and for girls - beautician and commercial programs.

It has been noted in previous paragraphs that the vocational curriculum is a heterogeneous one. Therefore, the control placed on curriculum was thought to be inadequate for the purpose of relating the skill-training received to the type of job secured, i.e., the "training-relatedness" of the work performed. In order to increase the probability that the course content was the same for Negro and white participants a single city was chosen, even though the physical facilities for a substantial share of the two groups are separated. In addition, the choice of a single labor market area increased the homogeneity of the demand for vocational graduates, both Negro and white. The control on IQ range was introduced to increase the homogeneity of the supply of trained graduates. Even though no consistent relationship was found between IQ score and other variables in the more highly aggregated analysis, it was not clear that the same relationship (or the lack of a relationship) would be found at a less aggregative level which would be expected to be more sensitive to comparative competitive advantages of individual graduates. Therefore, the control was placed on IQ range to avoid this unknown factor.

Each of the programs set forth above will be discussed individually in the following pages. A consistent pattern of fewer Negro graduates being employed in training-related jobs is clearly seen. However, two other patterns were found. The training-relatedness of the jobs secured by Negroes varies widely among the programs, i.e., several programs appear to have provided greater opportunity than others. (This assumes that a job related to the training received is better than one which is not.) The other pattern referred to is the varying relationship of the wage level of Negroes to that of white graduates from the same program. Again, some programs appear to serve their participants better than others. While focusing on the experiences of Negro graduates, it should not be overlooked that the training-relatedness of the jobs of white graduates also varies, as do their earnings.

Electronics. Eleven Negro and 22 white males were included in this group. Table 9.17 compares their pay rates and length of time in the first job.

The Negroes' pay rate averages 17 per cent less than the whites' both at the time of entry into and exit from the first job. This implies a narrowing of the differential per unit time because the whites had averaged nearly five months more in their jobs -- 18 versus 13 months for the whites and Negroes, respectively. For those who had had at least two jobs the relative starting pay deficit of the Negro in the second job was reduced to 11 per cent. This information alone suggests that the Negro had more difficulty finding employment which allowed him to utilize his skills fully, but that once in a job his performance was such that any initial income differential based on presumed productivity differences gradually disappeared. While this seems a plausible explanation of the findings it is rapidly dispelled when the actual job tasks are known.

It is quite evident that the Negro did not obtain employment related to his skill training. Only one out of eleven Negro graduates obtained a directly related job compared with ten out of twenty-one whites. In addition, two individuals in each group were in peripherally-related jobs. None of the Negroes was placed in a related job by his school placement office; four of the white graduates, however, were placed in related jobs. Of those who moved on to a second job one Negro began working with his father in electronics repair and four white youths, who were already in related employment, obtained better jobs similarly related. Thus, only one additional person moved into a job related to his skill training. This means that using the broadest definition of "related", about one-third of the Negroes and more than half of the whites were engaged in job tasks related to their training after a period of time ranging from 10 to 48 months.

TABLE 9.17

Electronics Hourly Pay and Job Titles, by Color (means)

	Wage Rate	
	Negro	White
Starting Pay	1.46	1.76
Leaving (or Current) Pay	1.72	2.06
Months	13.5	18.2
Numbers	11	21

Job Titles	
Negro	White
Auto Mechanic	Clerk
* Civil Service	* Electronics Repair
Draftsman	* Electronics Technician (6)
* Electronics Repair	* Instrument Technician
File Clerk	Machinist Apprentice
Grocery Clerk	Manufacturing Laborer
Hospital Attendant	Pump Repair Mechanic
Stock Clerk (2)	* Radio Repairman
Porter	Railroad Brakeman
* Telephone Wireman	Railroad Car Repair
	Retail Salesmen
	Technical Print Duplicator
	* Telephone Wireman
	* Typewriter Service
	* Vending Machine Repair

* -- Some relationship between training and job tasks

Auto Mechanics. Table 9.18 compares the mean rates of pay and average number of months worked for six Negroes and eight whites who completed an auto mechanics curriculum.

In this case the Negroes had a slightly higher mean starting pay rate, but they had slipped behind by the time they left the first job, or at the time of interview. It should also be noted that the Negro spend an average of one-third less time in this job, nine months compared with 14 for the white group. Thus, the rate of increase per unit time is not shown here.

Again, the kinds of jobs obtained were generally unrelated to the skill training received. Only one-half of the whites and two out of seven Negroes were placed in directly related jobs.

TABLE 9.18

Auto Mechanic Hourly Pay and Job Titles, by Color
(means)

	Wage Rate	
	Negro	White
Starting Pay	$1.62	$1.57
Leaving (or Current) Pay	1.64	1.68
Months	9.0	14.2
Number	6	8

Job Titles

Negro	White
* Auto Mechanic	* Aircraft Mechanic
Bus Driver	* Auto Mechanic (2)
Butcher's Helper	* Automotive Electrician
* Mechanic's Helper	Head Waiter
Porter	Pigment Fitter
Stock Clerk	Truck Driver
	Welder's Helper

* -- Some relationship between training and job tasks.

Printing. Included in this group were five Negro and 19 white graduates of the printing program. Their respective earnings and length of time worked are presented in Table 9.19.

Four of the five Negroes in this group obtained jobs related to their training and the mean pay rate for these five was higher than for whites. The average length of time in the first job was also longer for Negroes than for whites, so that the rate of increase in compensation per unit time is approximately comparable for the two groups. It is interesting to note the close relationship between training and job in this instance, especially in comparison with the experience of graduates from other programs. Four of the five Negroes and 15 of the 18 whites were employed in jobs related to their secondary school training. All five Negroes were still employed in their first jobs, while nine of the white youths had held two or more jobs.

Carpentry. The comparative pay rates and length of time worked in the first full-time jobs are presented in Table 9.20 for six Negro and seven white males.

The mean starting pay was identical for the two groups and was substantially lower than the average starting pay for graduates of the other programs. This is largely explained by the types of job obtained. The Negroes received a greater absolute advance in pay, but again this was over a longer average period of time.

TABLE 9.19

Printing Hourly Pay and Job Titles, by Color (means)

	Wage Rate	
	Negro	White
Starting Pay	$1.60	$1.48
Leaving (or Current) pay	2.18	1.79
Months	25.8	17.2
Number	5	18

Job Titles

Negro

- * Linotype Operator (2)
- * Printing Trades, General
- * Proofreader
- Retail Store Checker

White

- * Camera Operator (Lithography)
- Draftsman (2)
- * Linotype Operator (2)
- * Lithographer (2)
- * Plate Printing
- * Pressman (2)
- * Pressman's Helper
- * Printing Apprentice (2)
- * Printing Floor Man (Foreman)
- * Printing Inspector
- * Printing Trades, General (2)
- Shipping Clerk

* -- Some relationship between training and job tasks.

It is probable that the "cabinetmaker" and "carpenter" titles overstate the actual job tasks performed by entry level workers. Union barriers to entry into formal apprenticeship in the construction trades programs may partially explain the lack of relationship found between training and job.

Machine Shop. Four Negro and nine white graduates of a machinist program were included in this group. Table 9.21 shows the mean starting pay for the Negroes to have been substantially higher than that of the whites. The gap widened through time as the Negro spent less time in the job, on the average, yet the absolute percentage increase in pay was twice as large. The small N̲ again necessitates the qualification of these findings.

The high level of pay for machinists was closely related to the use of job skills, as it was to a lesser extent in the case of printing. The presence of three of the nine white employees in apprenticeship roles partially explains the pay differences. The expectation would be, then, that earnings of white graduates would exceed earnings of Negroes at a later date.

TABLE 9.20

Carpentry Hourly Pay and Job Title, by Color
(means)

	Wage Rate	
	Negro	White
Starting Pay	$1.27	$1.27
Leaving (or Current) Pay	1.66	1.43
Months	20.8	16.1
Number	6	7

Job Titles

Negro	White
Bank Teller	* Cabinet Maker (2)
* Carpenter	* Carpenter
Display Man	Mechanic
Kitchen Worker	* Moulder
Shipping & Receiving Clerk	Store Cashier
Silkscreen Printer	Store Manager

* -- Some relationship between training and job tasks

TABLE 9.21

Machine Shop Hourly Pay and Job Titles, by Color
(means)

	Wage Rate	
	Negro	White
Starting pay	$2.20	$1.79
Leaving (or Current) Pay	2.82	2.05
Months	7.7	10.7
Number	4	9

Job Titles

Negro	White
Assembly Line (2)	Billing Clerk
Foundry Worker	Driller in Mineral Extraction
* Machinist	* Machinist (2)
	* Machinist Apprentice (3)
	* Millwright
	* Tool & Die Maker

* -- Some relationship between training and job tasks.

Electricity. Only three Negroes were included in this category as compared with twelve whites. Table 9.22 shows the mean pay rate of the Negro to have been lower both at the time of entry and after an average of two years on the job, although the difference between the two groups narrowed. It was seen that approximately one-half of the graduates were able to find jobs utilizing the skills they had learned in school.

Summary of the Male Sub-Group Analysis. The starting pay of Negroes who graduated from both the electronics and electricity programs was substantially below that of their white counterparts (see Table 9.23). The pay of the two groups was comparable for those who graduated from a carpentry or auto mechanics curriculum, and the Negroes who pursued a printing or machine shop course surpassed the average beginning pay for similarly situated whites. The numbers were too small to draw definitive conclusions, but a greater proportion of the Negro graduates from the printing and machine shop programs were found in related employment, the electronics program was next, and the elctricity, carpentry, and auto mechanic programs lagged behind.

Negroes achieved the best related placement record in the printing trade. The Negro graduates of three programs remained in their first jobs longer on the average than did the whites and not as long in the other three. Those whites who graduated from electronics and electricity programs continued to exceed the Negroes in average pay at the time they left the first job (or at the time of interview). The white graduates from the printing and machine shop courses, as well as the carpentry program, continued to lag behind the Negroes with respect to pay. The respective pay rates of both groups in auto mechanics remained approximately equal.

TABLE 9.22

Electricity Hourly Pay and Job Titles, by Color
(means)

	Wage Rate	
	Negro	White
Starting Pay	$1.43	$1.82
Leaving (or Current) Pay	1.70	1.94
Months	26.0	23.6
Number	3	12

Job Titles

Negro	White
Bakery Worker	* Appliance Repair
* Electrical Equipment Manufacture	Bakery Worker
* Laboratory Technician	Billing Clerk
	Clerk
	* Electrician
	(2) * Electrician's Apprentice
	File Clerk
	* Laboratory Technician
	Merchant Seaman
	Primary School Teacher
	Warehouseman

* -- Some relationship between training and job tasks

TABLE 9.23

Summary of Pay and Months on Job* of Male Graduates From Six Vocational Programs in One Large City, by Color (means)

	Starting pay	Leaving pay	Number of months empl.	Number
Electronics				
Negro	$ 1.46	$ 1.72	13.5	11
White	1.76	2.06	18.2	21
Auto mechanics				
Negro	1.62	1.64	9.0	6
White	1.57	1.68	14.2	8
Printing				
Negro	1.60	2.18	25.8	5
White	1.48	1.79	17.2	19
Carpentry				
Negro	1.27	1.66	20.8	6
White	1.27	1.43	16.1	7
Machine shop				
Negro	2.20	2.82	7.7	4
White	1.79	2.05	10.7	9
Electricity				
Negro	1.43	1.70	26.0	3
White	1.82	1.94	23.0	12

* First job

The tentative conclusion can be drawn that opportunities for all graduates differed according to the programs or courses they pursued, and that opportunity for the Negro was even more narrowly proscribed. A high school diploma did not necessarily provide equal opportunity to all graduates. Although more extensive research needs to be done at this highly controlled level before strong policy implications can be drawn, this analysis has been suggestive of the variability in the experiences of individuals stratified by city of graduation, sex, IQ and specific skill-training received.

Beauticians. Nine Negro and six white girls were included in this course. Data on mean pay rates and length of time worked are presented in Table 9.24. A qualification of these pay rates is in order. Beauticians depend heavily on tips to provide an acceptable income. Although no data were obtained on tips there is no reason to believe that the differentials would be affected by this omission.

TABLE 9.24

Beauticians' Hourly Pay and Job Titles, by Color
(means)

	Wage Rate	
	Negro	White
Starting Pay	$ 1.00	$ 1.08
Leaving (or Current) Pay	1.34	1.33
Months	20.5	17.6
Number	9	6

Job Titles

Negro	White
Assembly Line Worker * Beautician (6) Billing Clerk Retail Clerk	* Beautician (6)

* -- Some relationship between training and job tasks

No differences were found in comparative pay rates. All of the white girls and six of the Negro girls were employed as beauticians. The other three Negroes were employed as a retail clerk, a billing clerk, and an assembly line worker in an electrical equipment manufacturing plant. A high training-related placement rate was apparently achieved in the beauticians group.

Commercial Program. This program includes courses in typing, shorthand, filing, use of office machines, and other related subjects. Fifteen Negro girls and seven white girls had completed this program. Their respective earnings and time in the job are shown in Table 9.25.

In this instance the average length of time in the job was similar for members of each group, but the Negro girls' pay was lower at entry and remained lower throughout. All of the white graduates and two-thirds of the Negro graduates obtained jobs utilizing their training. If the separation of the secretary and typist classifications was valid in terms of job tasks performed, the white employees obtained the preferred jobs.

Summary of Female Sub-Group Analysis. The general conclusion to be drawn in connection with the females is that the relationship of training to job of the female graduates intervived is much greater than that of the males interviewed. The job titles of the Negro female graduates from a commercial program suggest that they did not have access to the same types of jobs as those held by white girls with similar training. It is possible that the specific courses available to and/or taken by the respective groups were sufficiently different to explain these differences in job tasks performed.

TABLE 9.25

Commercial Hourly Pay and Job Titles, by Color
(means)

	Wage Rate	
	Negro	White
Starting Pay	$ 1.05	$ 1.36
Leaving (or Current) Pay	1.10	1.60
Months	16.1	18.2
Number	15	7

Job Titles

Negro	White
Housekeeper	* Office Clerk (2)
* File Clerk (2)	* Secretary (5)
* Office Machine Operator (2)	
Sales Clerk (2)	
* Secretary (2)	
* Stenographer	
* Typist (2)	
Waitress (2)	

* -- Some relationship between training and job tasks

These two sections -- one dealing with male graduates and one with female graduates -- are indicative of the wide variation in the experiences of individuals when controls are placed on city of graduation, IQ, sex, color, and specific training received.

Summary and Conclusions

This section has presented an evaluation of the experiences and attitudes of Negro graduates from a high school vocational curriculum. The presentation has been both descriptive and analytical. The analysis can be said to be relative to the extent that it focuses on a comparison of the experiences and attitudes of Negroes and whites. Nevertheless, attention was given here to vocational graduates only. Section II, following, introduces intercurriculum comparisons.

From the students' point of view, few differences could be found in the adequacy of the vocational training of Negroes and whites. The preceding section showed that on many indices of employment experiences the groups were quite comparable. Those differences that did occur in earnings, and in the degree to which emplyment was related to training, are probably attributable more to employment discrimination than to high school preparation.

Little support was found for the charge that Negroes are receiving a second-class education. On the contrary, almost all questions related to high school experiences showed Negroes to be just as positive about these experiences as whites. These questions include those discussed in this section as well as in Chapter 8. In Chapter 8 it was noted that almost all the Negro respondents felt fully accepted by their classmates and by school officials. They were not aware of any condescension or exclusion from activities in their schools. By every criteria used, the data collected for this study show Negroes to have been as satisfied as whites with their high school experience. Two qualifications should be noted. First, it must be stressed that these findings were based on the responses of Negro graduates. Many of the most pressing problems confronting the Negro today concern the alienation of the young from society so that they never have an opportunity to benefit from traditional high school curricula. Secondly, most of the Negro graduates interviewed in this study attended segregated facilities in large urban areas. Therefore, their responses probably take cognizance only of their own reference group, and similarity in responses concerning preparation and satisfaction between Negro and white graduates may not imply comparability of attitudes , expectations or aspirations. Great care is urged in interpreting the findings reported here.

The respective experiences of the Negro and white graduates in the labor market are less similar. While the white graduates were occupationally distributed in their first jobs in proportions quite comparable to the distribution of types of jobs wanted, the Negro graduates did not validate their expectations to the same extent. On the one hand, even though the Negro graduates had not expressed preferences for white-collar jobs in as large a proportion as did the white graduates, the jobs they obtained were even less heavily concentrated in this sector. On the other hand, the Negroes were much more heavily represented in the service and manufacturing sectors.

The distribution of methods of job search used which led to the securing of employment did not differ substantially between the color groups. Thus, the differences in types of jobs obtained are not explained by differences in the use of means to obtain jobs, unless one hypothesizes that although comparable proportions of Negroes and whites secured jobs through friends or relatives, the contacts that these friends and relatives would have that could assist a job seeker would be expected to differ.

The wage rates received differed in expected ways, given the distribution of jobs. Negroes both started at lower average wages and received smaller increments than did white graduates.

Even though differences in job types and compensation were revealed there were no substantial differences between Negroes and whites in job satisfaction expressed either by the employees or employers. As in other instances, this finding is open to several interpretations. Either the Negro employees and their employers recognize the presence of a differential and accept it, or the Negroes do not realize that they as individuals are receiving less money and performing different tasks than similarly trained whites.

The conclusion to be drawn from the data presented in this section is that, while the revealed employment experiences of the Negro and white graduates differed substantially, their satisfaction with these experiences and their attitudes toward the training received did not differ very much.

The one question that revealed lower levels of satisfaction was "advice to a young person." Male Negroes especially were less willing to recommend the vocational curriculum.

The low degree of "training-relatedness" of the jobs secured by these vocational graduates, however, both Negro and white, indicates that the entry portal into the labor force needs to be rationalized. The school system must become increasingly conscious of the role it plays in determining the future welfare of its graduates. In this vein attention is shifted now to the intercurriculum analysis of the Negro sample, in an attempt to solidify the concept of the benefits to be derived by Negroes from vocational training relative to other choices available to them as entering students.

SECTION II: ATTITUDES AND EMPLOYMENT EXPERIENCES OF NEGRO VOCATIONAL GRADUATES FROM THREE CURRICULA

The previous section compared the attitudes and experiences of Negro and white graduates from the vocational curriculum. The analysis attempted to determine how well vocational education serves the Negro student in comparison to the white student. In general, it was concluded that Negro graduates seem to be as well trained as whites. The differences that were detectable suggest they could be attributed more to employment discrimination than to quality of preparation.

This section is concerned with graduates from all three curricula. Emphasis is placed on intercurriculum comparisons among Negroes. The comparisons among whites are also presented to provide a bench-mark against which to evaluate the Negroes' experiences.

The organization of this section differs from the previous one. The section begins with a discussion of curriculum choice. All evaluation criteria are grouped into two separate subsections. The first of these discusses those criteria which show no advantage accruing to the Negro student who selected the vocational curriculum. The second subsection, on the other hand, reports those criteria that indicate the Negro graduates did benefit from the vocational curriculum. On the criteria presented in this subsection, the Negroes performed either as well as white or better than the Negro graduates of the other two curricula. The section concludes with a summary and conclusions.

Curriculum Choice

Reasons for Selecting Curriculum. In Section I of this chapter it was noted that the school evaluation team had observed that in some cities Negro students were persuaded by their schools not to study certain vocational programs. These programs typically trained for those skilled trades where the controlling unions followed policies of excluding Negroes. If some young people were not persuaded not to follow these trades, these students should have appeared in the follow-up interviews as academic or general curriculum graduates who reported choosing their curricula at the schools' suggestion. Table 9.26 shows one group where a disproportionate number of graduates said they followed their high schools' advice. This group is made up of the Negro males who graduated from the general curriculum. Their higher incidence thus confirms the observations of the evaluation team. While the absolute percentage is small, only 12 per cent, it is almost twice as high as the percentage of any other group. There was evidence, then, from two independent sources that some school officials were acting in ways that contributed to discrimination in their communities.

From one point of view the motives of these officials may have been the best. They were trying to spare their students from wasting years in preparation for a trade they would never be able to enter. By so doing, however, they were limiting the opportunity of yet another generation of Negro youth. They were also failing to assume the responsibility for leadership in opposing discrimination in their communities. Employers often complain that they cannot find qualified Negroes to hire. In fact, this comment was frequently volunteered when employers were interviewed for this study. It was prompted by one of the classification questions at the very end of the interview. When the employers were asked their approximate percentage of non-white employees, they often complained they could find none to hire. School officials who convince Negroes that certain occupations offer them no opportunity contribute to this cycle: Negroes lack qualifications and hence are not hired in certain occupations; the schools, in turn, do not train Negroes for these occupations because Negroes are never hired for them. The school would appear to be in the best position to break this cycle.

There were a few other responses where significant differences were found between Negro and white respondents. For example, white male graduates of the general curriculum were the most likely to report they chose their courses because they were easy. Few of these differences, however, appeared to be related in a consistent manner to curriculum, sex, or race. Nor were any other data available in the study that appeared to explain them.

Type of Jobs Wanted While in School. The Negro and white male graduates from all three curricula showed similar patterns of job plans while in school (Table 9.27). The Negro plans differed from the white in that a larger proportion of Negroes wanted manufacturing and processing jobs and a smaller proportion wanted white collar jobs. These differences held, in different magnitude, for all three curricula.

The same types of differences found for all the males were found between the female Negro and white vocational graduates. The academic and general curricula females, however, were more similar. There were few differences among these graduates either comparing color or curricula. The one difference that did occur was found for both Negroes and whites: almost eight out of nine of the general curriculum females had wanted clerical jobs; over six out of nine of the academic curriculum females had wanted managerial-technical type jobs.

Just as in the comparisons of the vocational graduates, the similarity in the patterns of Negro and white graduates from all curricula outweighed the differences.

TABLE 9.26

Reasons Given by Respondents for Choosing Courses Studied in High School by Sex, Color, and Curriculum

	Males						Females					
	White			Negro			White			Negro		
	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic
Prepare for College	1	7	63	0	7	54	2	4	51	2	4	62
Interest	41	17	7	39	21	8	15	10	8	28	17	5
Prepare for Job	24	24	3	34	27	2	53	52	7	45	51	8
Prepare for Future	13	15	10	8	12	6	13	14	6	12	8	6
Prepare for Other Post-Secondary Training	1	1	3	1	3	6	2	2	12	0	1	8
School's Suggestion	5	7	4	5	12	5	3	4	5	5	6	4
Outside Pressure	5	2	4	3	3	2	4	2	5	2	3	4
Easy Courses	3	11	1	2	5	2	2	4	0	2	3	0
Others - Don't Know	7	15	4	7	9	14	6	7	5	3	6	4
Number	931	572	443	211	127	79	716	1017	376	179	268	111

TABLE 9.27

Type of Job Wanted While Still in High School by Sex, Color, and Curriculum

	Males						Females					
	White			Negro			White			Negro		
	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%	%	%	%	%	%	%
White Collar	34	61	80	27	50	73	79	88	91	67	94	96
Professional, Technical, Managerial, and Kindred	27	33	70	18	27	43	8	8	67	11	11	65
Clerical	6	22	8	7	22	23	69	79	22	55	80	27
Sales	2	33	1	2	1	7	1	1	1	1	4	2
Service	2	33	4	2	2	7	16	8	5	13	3	2
Manufacturing and Processing	63	37	16	71	48	20	6	4	4	20	4	2
Number	747	336	201	164	88	30	647	883	227	152	226	51
	%	%	%	%	%	%	%	%	%	%	%	%
Undecided - No answer as per cent of all respondents in category	20	36	55	24	34	62	11	14	41	19	16	54

Intercurriculum Comparison of Negro and White Graduates

Indices Showing no Advantage to Negro Vocational Graduates. "Advantage" is narrowly construed here to mean a difference in attitude or experience which indicates greater satisfaction, better preparation, greater opportunity, or a higher level of welfare derived from participation in one curriculum instead of another. The measurement of relative advantage is limited to a short time-span immediately following graduation. Reliance was necessarily placed on a small number of indices to elucidate differences among graduates from the respective curricula. Attention is devoted in the following paragraphs to a discussion of those indices which show no evidence of a more favorable attitude or experience evolving among Negro graduates from one school experience rather than another.

One measure of experience used in this study, which is amenable to classification in terms of an advantage or disadvantage, is the occupational distribution of first jobs. Table 9.28 shows the occupational distributions by curriculum, sex, and color. As expected, larger proportions of the vocational graduates obtained jobs in the manufacturing and processing sector than did graduates from the other curricula. Far greater shares of Negroes than whites secured jobs in the service sector, and Negro females were more heavily concentrated in the manufacturing sector than were white females. Conversely, the proportion of Negro girls in clerical jobs was substantially below that for white girls. The inescapable conclusion is that the Negro graduates did not secure the same general types of jobs as did the white graduates. This study was not intended to explore the non-school connected reasons for, or ramifications of, these job differentials. The relative absence of Negro girls from the clerical sector and the inordinately large concentration of Negroes in the service sector are highly suggestive of labor market discrimination, especially so because the entire sample included only high-school graduates who did not immediately pursue post-secondary studies.

Given these differences in occupational distributions both between the color groups and among the curricula, it is significant that the immediate supervisors of the Negro and white graduates did not express any differences in satisfaction with their respective preparation of performance. Table 9.29 shows the mean ratings given on the six measured aspects of the job situation. It is particularly interesting to note that the graduates from the academic and general curricula were rated as having been equally well prepared for their jobs as were the vocational graduates regardless of color. This may be because of the absence of tasks which require highly specialized training in these entry level jobs, as well as the relationship (often a tenuous one) between curriculum content and job tasks performed. This finding certainly indicates the relevance of an intensive study to answer the question "in what types of jobs are supervisors more satisfied with the preparation and performance of graduates who have received specific skill-training than with similar aspects of other graduates' training and performance (and why)?"

It has been shown that the Negro graduates from a vocational curriculum were generally satisfied with their school and work experiences. In addition, the data collected indicated that the Negro graduates were equally as satisfied as were the whites, with the exception, perhaps, of perceived promotional opportunity by Negro girls.

TABLE 9.28

Occupational Distribution of First Jobs, by
Curriculum, Sex and Color

	Male						Female					
	White			Negro			White			Negro		
	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%	%	%	%	%	%	%
White Collar:	34	48	55	25	36	38	75	80	80	48	66	52
Professional, Technical, Managerial and Kindred	14	7	15	8	3	7	4	4	14	5	4	13
Clerical and Kindred	17	33	32	14	29	28	64	67	59	39	56	31
Sales and Kindred	3	8	8	3	4	3	7	9	7	4	6	8
Service:	5	9	9	20	19	39	14	8	11	22	16	25
Personal	4	7	6	12	10	30	14	7	10	21	14	23
Other	1	2	3	8	9	9	--	1	1	1	2	2
Manufacturing:	61	43	36	55	45	23	11	12	9	30	18	23
Specific Skill	25	11	6	19	7	4	3	2	1	7	3	8
Non-Specific Skill	27	27	27	29	37	16	8	10	8	21	15	14
Apprentice	9	5	3	7	1	3	--	--	--	2	--	1
Number	852	503	382	193	115	69	673	919	312	176	243	87

TABLE 9.29

Mean Supervisors' Ratings* of Preparation and Performance on the Last (or Current) Job, by Curriculum, Sex, and Color

	Male						Female					
	White			Nonwhite			White			Nonwhite		
	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic
Occupational Knowledge	3.0	3.0	3.2	3.0	3.0	3.3	3.0	3.0	3.2	3.0	3.0	3.0
Manipulative Skills	3.2	3.2	3.4	3.2	3.0	3.4	3.4	3.3	3.4	3.0	3.0	3.2
Personal and Social Qualities	3.3	3.5	3.5	3.2	3.2	3.8	3.5	3.3	3.5	3.2	3.3	3.5
Work Qualities and Habits	3.4	3.4	3.6	3.4	3.2	3.4	3.6	3.4	3.6	3.2	3.4	3.4
Overall Performance	3.4	3.3	3.6	3.3	3.3	3.5	3.5	3.4	3.5	3.3	3.3	3.3
Overall Preparation	3.2	3.2	3.4	3.3	3.2	3.2	3.3	3.2	3.3	3.1	3.1	3.0
Number	497	331	279	73	53	23	458	562	237	76	93	41

* -- 5 point scale ranging from 1 (complete dissatisfaction) to 5 (complete satisfaction)

On the basis of these findings one would expect these Negro graduates to suggest a similar decision on the curriculum to be pursued by others. This is not the case as is indicated in Table 9.30. While 60 per cent of the white male graduates from an academic curriculum would advise a similar decision by a young person today, less than half the Negro males from any of the three curricula would advise a young person to make the same decision they had made. In other words, the Negro males were not so enthusiastic about the opportunities opened up by the training they had received that they would universally suggest that others replicate their experience. Approximately twice as large a percentage of Negroes as whites would defer judgment depending upon the individual in question. Fewer Negroes, however, were sufficiently disenchanted to actually state that they had made a wrong choice.

The vocationally trained males were less likely than the academic graduates to recommend that a young person seek similar training despite the findings (to be duscussed below) showing that the male Negro graduates from the vocational curriculum were more satisfied with some aspects of their jobs, thought that they were better prepared in some areas, started at higher wage levels, remained in their jobs longer, left their jobs less frequently because of dissatisfaction or to return to school (an indication of a perceived deficiency or inadequacy) than did Negro graduates from the other curricula. Again, the reference group influence and less than full knowledge of alternatives are undoubtedly contributing factors to this situation.

Comparisons between Negro and white graduates from the vocational and from the general curricula do not establish any substantial differences in the advice offered to others. The male graduates from the general curriculum, Negro and white, however, were far less satisfied with their experiences than were graduates from either of the other curricula. This was not found in an intercurriculum comparison of females for reasons discussed in Chapter 6, primarily because of the degree of homogeneity of training received in the programs taken by girls and the skill requirements of entry level jobs for them.

While the types of jobs obtained were not thought to be amenable to use as an index of relative advantage, and while the preparation and performance ratings given the graduates by their immediate supervisors showed no evidence of relative advantage, the indices discussed below all indicate a partial or total advantage accruing to the Negro graduates from the vocational curriculum relative to either other Negro graduates or white graduates of other curricula. The differences in advice given by Negro and white graduates from the respective curricula should be kept in mind when reading the following paragraphs. Are the recommendations given to potential students consistent with the findings shown below?

Indices Showing Advantages to Negro Vocational Graduates. Chapter 6 presented data on the graduates' ratings of their preparation for job subsequently secured and showed that the vocationally trained graduates, disregarding color, thought they were better prepared in the use of equipment and the application of specific skills than did their non-vocationally trained counterparts. When these data were broken out by color (see Table 9.31) the same differences were found for both the Negro and white graduates, with the exception of Negro females who rated their preparation at the same (high) level regardless of the curriculum they had pursued. As was noted in Chapter 6, "preparation" is only meaningful relative to the tasks required. Therefore, if a job does not require the application of technical skills or the use of complex machinery or

TABLE 9.30

Most Frequent Advice to a Young Person Just Starting
High School by Sex, Color, and Curriculum

	Male						Female					
	White			Negro			White			Negro		
	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%	%	%	%	%	%	%
What I Took	52	34	60	43	36	47	59	55	59	53	62	44
Academic Curriculum	15	21	--	88	23	--	9	10	--	12	8	--
I Made Wrong Choice	6	7	3	1	2	1	6	6	5	2	2	4
Depends on Person	8	9	9	21	15	19	7	7	8	17	14	14
Number	934	569	445	213	128	78	723	1016	382	185	266	111

TABLE 9.31

Median Ratings of Preparation for First Job, by Curriculum, Sex, and Color

	Male						Female					
	White			Negro			White			Negro		
	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic
Use of Equipment	6	4	3	5	5	3	6	5	3	6	6	5
Skills	5	4	4	6	5	4	6	5	4	6	6	6
Mathematics	5	5	5	5	5	5	5	5	5	5	5	5
Science	3	1	2	4	2	1	1	1	1	2	3	3
Ability to Communicate	5	5	6	6	5	6	6	6	6	6	6	7
Number	573	263	159	143	052	040	558	704	163	149	181	45

7-Point Scale
1 - 3 little preparation
4 - average preparation
5 - 7 excellent preparation

equipment it would follow that one would think he was adequately prepared regardless of the content of training received. Nevertheless, the data strongly suggest that the male Negro graduate who had received vocational training was better prepared for what was expected of him in the job that he obtained than were male Negro graduates of other curricula.

It will be recalled that the immediate supervisors of the Negro graduates did not express any difference in satisfaction with the preparation of the graduates from the respective curricula. Since these judgements were based on the last (or current) job, it may be that the non-vocationally trained employees picked up the necessary skills in their first job, or that, as was noted above, little preparation was called for in the types of jobs referred to.[2]

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[2] The first and last (or current) jobs are not mutually exclusive categories. It was shown in Table 9.16 that from 38 to 56 per cent of the graduates, depending on sex and color, were still employed in their first job at the time of interview. In this case, the supervisors' ratings would be of the preparation for and the performance on the first job.

Having found the male Negroes who graduated from a vocational curriculum to think they were better prepared for their jobs, and that the female Negro graduates did not differ by curriculum in this regard, it is important to know what each group thought about the school's role in this preparation. Do the male Negroes think the vocational schools (or vocational programs within a comprehensive school) make a greater effort to prepare them than do graduates from the other curricula, and are no differences found among female Negroes again? Table 9.32 shows that this is not the case at all.

While the Negro and white proportions for a given curriculum who thought that their school had made a "real effort" on their behalf were very comparable, a substantially greater proportion of the vocational graduates thought this way than did the other groups. This is to be expected if the occupational training orientation of the vocational curriculum is, in fact, unique to that curriculum. It is a little surprising that such a large difference of opinion was found between female Negro graduates of the vocational and general curricula, since other indices showed quite similar attitudes and experiences for these groups.

It is concluded that the Negro graduate from a vocational curriculum perceives himself to have been prepared better in school for what would be expected of him after graduation than other Negro graduates evaluated their preparation. As was pointed out in Chapter 6, though, to be prepared is no guarantee of placement in a job utilizing the skills learned. The obvious means of placement would be the school, either formally or through teacher contacts, because they know more about the student (potential employee) than anyone else. The vocational educators, in particular, should have established contacts in the community of employers, if for no other reason than to maintain current information on new skills and equipment that may be introduced in a given work process. Section I of this chapter showed the Negro students from the vocational curriculum to have used successfully the school placement channel less frequently than did the white vocational students.

TABLE 9.32

Schools' Effort to Prepare Graduate for a Job
by Sex, Color, and Curriculum

	Male						Female					
	White			Negro			White			Negro		
	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%	%	%	%	%	%	%
School Made Effort	85	69	62	86	74	67	86	83	63	88	74	59
School Did Not	13	29	35	10	22	33	13	16	34	9	20	37
No Answer - Didn't Know	2	2	3	4	4	0	1	1	3	3	6	4
Number	934	570	443	214	127	78	179	1016	375	185	264	111

Table 9.33 shows, however, that the Negro vocational students made far greater use (which resulted in a job) of this method than did other Negroes. This is consistent with the relationship found among white graduates.

The remaining indices are measures of the relative experience of the graduates once they had obtained jobs. Starting and leaving pay, length of time in the job, satisfaction with various aspects of the job, and reason for leaving the job (if not still employed) are all dealt with below.

The conclusion was reached in Chapter 6 that while no immediate payoff in the form of a wage increment accrued to the vocational graduates, it did appear that an advantage was gained over time, recognizing that a time-adjusted index of wage changes over such a short period of time was not sensitive enough to provide conclusive evidence.

It was shown in Section I of the present chapter (see Table 9.13) that the white graduates from a vocational curriculum averaged higher starting wages and commanded larger increments over a given time-span than did similarly educated Negroes. It is now seen in Table 9.34 that the male Negro who pursued the vocational curriculum both starts at a higher average level and receives a larger increment than do Negro graduates from the other two curricula. No such differences are found in a comparison among Negro females. It is apparent that, while still worse off than comparably trained whites, the male Negro who received vocational training was relatively better off (i.e., less worse off) than his non-vocationally trained counterparts. Careful study of Table 9.34 shows that the white graduates started at the same level and received the same increment regardless of the curriculum they had pursued. Therefore, the

TABLE 9.33

Use of School Placement Services to Obtain Employment, by Curriculum, Sex, and Color

	White			Negro		
	Vocational %	General %	Academic %	Vocational %	General %	Academic %
Male	25	7	8	17	9	4
Number	(867)	(522)	(397)	(196)	(116)	(69)
Female	22	20	11	24	14	6
Number	(679)	(936)	(312)	(175)	(244)	(88)

TABLE 9.34

Intercurriculum Comparison of Pay* in First Job for Graduates from Large Cities, by Sex and Color
(medians)

	Male						Female					
	White			Negro			White			Negro		
	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic
Starting	$ 1.40	$ 1.40	$ 1.40	$ 1.30	$ 1.20	$ 1.20	$ 1.30	$ 1.30	$ 1.30	$ 1.20	$ 1.20	$ 1.20
Number	(407)	(199)	(190)	(173)	(82)	(61)	(321)	(256)	(140)	(149)	(165)	(63)
Leaving (or Current)	1.70	1.70	1.70	1.50	1.30	1.30	1.50	1.50	1.50	1.30	1.40	1.20
Number	(322)	(188)	(182)	(163)	(28)	(57)	(302)	(255)	(139)	(141)	(151)	(60)
Median Number of Months Worked	12	10	10	12	12	9	13	13	12	14	14	9
Number	(410)	(200)	(190)	(124)	(81)	(63)	(330)	(262)	(146)	(155)	(167)	(63)

* -- gross hourly equivalent

Negro graduates from the general and academic curricula fell farther behind as time passed because they had started at lower levels and received smaller absolute increases in pay.

Although this analysis covers only a small part of the potential working life of the respondents, the relationships shown are both important and suggestive. They are important because the high-school training received has its greatest effect over the first year or two in the job. While it is possible that the training received by the Negro graduates differed substantially from that received by white graduates, it is more likely that the revealed differences in employment experiences are due to labor market discrimination.

A methodology is needed which would separate the independent "contributions" of educational qualification and employer discrimination to the observed differences in experiences of Negroes and whites. The differentials shown, in conjunction with the analyses of numerous other studies, suggest that the gap between Negro and white earnings may actually increase over time.

One other relationship shown in Table 9.34 should not be overlooked. The Negro graduates from an academic curriculum, both male and female, spent a substantially shorter average period of time in the first job than did other Negro graduates. This suggests their dissatisfaction with, or inadequate preparation for, the tasks to be performed. The data to be shown in Table 9.36 suggest that both of these explanatory factors are relevant.

It has now been shown that while expressing similar degrees of satisfaction with the performance of Negro graduates from the respective curricula, the employers were paying the non-vocationally trained graduates less than those who had received skill-training. It was stated that this is not unexpected, especially in the first job obtained after graduation, because of the presumed differential in the productivity of the graduates, based on their educational backgrounds. Given the differences in types of jobs and pay received, though, it is important to know how the graduates themselves perceive their situation. Do they like the work? Are they satisfied with their pay and promotional opportunity? Referring back to Table 9.15, it was shown there that the only average rating of dissatisfaction by Negro and white graduates from a vocational curriculum was given by Negro girls to their perceived promotional opportunity. In Table 9.35, however, it is seen that both Negro and white male graduates from a general curriculum were dissatisfied with what they perceived to be their potential for promotion, and Negro males who graduated from an academic curriculum were even more pessimistic, giving a median rating of two on the seven-point scale. The Negro male graduates from both of the non-vocational curricula also expressed dissatisfaction with their pay, bearing out the pay relationships reported in Table 9.34 above. Not one of the female groups, Negro or white, expressed positive satisfaction with their promotional potential in the first job, but this does not appear to be related to the color factor. The special nature of the female graduates' participation in the labor force will be dealt with at greater length in Chapter 10.

It is concluded, then, that the male Negro who graduated from the vocational curriculum was more optimistic about his chances for promotion and was more satisfied with his earnings than were the male Negro graduates from the other curricula. These data are consistent with the higher wages actually received and the longer tenure on the job by the vocational graduates. They are also consistent with the information presented below concerning reasons given by the graduates for leaving the first job.

TABLE 9.35

Ratings of Satisfaction by the Graduates for the
First Full - Time Job, by Curriculum, Sex, and Color

(Medians)

	Male						Female					
	White			Negro			White			Negro		
	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic
Work	5	5	5	5	5	4	6	6	5	5	5	5
Pay	4	4	4	4	3	3	4	4	4	4	4	4
Promotion	4	3	4	4	3	2	4	3	3	3	4	3
Supervision	5	5	5	6	5	5	6	6	6	5	6	5
People	6	6	6	6	6	7	7	7	6	6	6	7
Number	878	525	395	185	114	71	685	940	319	174	240	89

7-Point Scale: 1 - 3 dissatisfied
4 average
5 - 7 satisfied

The most important reasons given by the graduates for leaving their jobs were "dissatisfaction" and "to get a better job." Larger proportions of the white male graduates from the vocational curriculum were shown in Table 9.16 to have left because of dissatisfaction than did Negroes. The opposite relationship was found between the color groups with regard to leaving to take a better job. The combined percentages in these two categories were nearly identical for each of the color groups. These differences are not nearly as pronounced between Negro and white graduates from the other curricula, as is shown in Table 9.36. Thus, nearly twice as large a proportion of white graduates from the vocational curriculum than Negroes were promoted internally, thereby forcing the Negro graduates to seek vertical mobility outside the present employers' domain of control. Table 9.36 reveals far greater proportions of both Negro and white graduates from an academic curriculum to have left their first job to return to school. The speculative question was raised in Chapter 6 whether this is found because the academic curriculum requires or allows supplementation. Do the graduates from the academic curriculum have a greater need for additional education or a greater opportunity to obtain it?

It is concluded from the reasons given by the graduates for leaving their first jobs that the white graduates were more often promoted within the firm than were the Negro graduates, but that the Negro graduates from a vocational program were more likely to report the positive reason "left to get a better job" than the negative reason "dissatisfied with present job" given more often

TABLE 9.36

Reasons Given by the Graduates for Leaving Their First Job, by Curriculum, Sex, and Color

	Male						Female					
	White			Negro			White			Negro		
	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic	Vocational	General	Academic
	%	%	%	%	%	%	%	%	%	%	%	%
Still Employed*	(35)	(35)	(36)	(54)	(39)	(40)	(41)	(40)	(40)	(47)	(49)	(41)
Promoted Within Company	16	16	17	9	19	10	20	19	26	11	9	14
Got Better Job	23	19	21	37	24	24	15	14	6	29	13	20
Employer Initiated Termination	18	15	11	17	16	16	11	13	7	8	20	18
Dissatisfaction	23	25	19	12	19	16	25	23	22	21	20	14
To Return to School	5	8	21	8	12	24	4	4	14	7	7	22
Other	15	17	11	17	10	10	25	27	25	24	31	12
Number	560	339	298	88	70	42	401	560	190	90	122	50

* -- Percentages are of those who did leave the first job, except the figure for those listed as still employed in the first job, in which instance the figure is the percentage of those responding.

by white graduates. Intercurriculum differences within the color groups were essentially restricted to the concentration of vocational graduates who left to get better jobs relative to the academic people who returned to school, or the graduates from the general curriculum who expressed greater dissatisfaction with the jobs which they had left.

Summary and Conclusions

The purpose of this section has been to consolidate and illustrate the indices which were used to measure the relative position of the Negro graduates from the vocational curriculum vis-a-vis Negro graduates from the other curricula and white graduates from all three curricula. Most of the indices introduced here portrayed the vocationally trained Negroes to have had a more positive attitude toward their school and work experience than other Negro graduates did, as well as indicating the advantage commanded by these graduates in terms of earnings. Nevertheless, while the vocationally trained Negroes realized similar experiences in many ways to those of their white counterparts, no measure showed the Negro to have benefited more by participating in a given curriculum than comparable white graduates, and several -- such as earnings and perceived promotional opportunity -- showed the Negro to be truly disadvantaged.

Even though the vocationally trained Negroes appear to have realized greater opportunity than the other Negro graduates they were no more willing than the others to advise a young person to replicate their experience. With all of these differences in mind it was shown that the graduates' immediate supervisors essentially did not differentiate between Negro and white workers in terms of satisfaction with their preparation and performance. The implications of these findings are discussed in the summary and conclusion section following.

SECTION III: SUMMARY AND CONCLUSIONS

General Summary

This chapter has been concerned directly with the Negro and vocational education because otherwise the subject might have been submerged in the attempt to meet the broader study objective of evaluating vocational education. Attention has been focused here on the experiences of the Negroes who followed the vocational curriculum. What were their attitudes toward that experience? How do these attitudes differ from those of non-vocationally trained Negroes and of white graduates from all three of the major curricula? How have these Negroes fared since graduation when compared to the same groups?

A number of factors was introduced to indicate the extent to which the non-school environment of the Negro and white graduates had differed during their high-school years. Since the Negroes interviewed were primarily located in the large cities, only graduates of the schools in the large cities were included for a comparative analysis of wages. The distribution of IQ's of the Negroes was found to be skewed toward the low end of the scale but no consistent relationship was revealed between IQ score and other indices.

The environments of the Negro and white graduates differed substantially. The fathers of Negro graduates, as compared with white graduates, were more frequently employed in the service sector and in jobs requiring no specific skill in the manufacturing and processing sector. The average income of the families of Negro graduates was substantially lower than that of white families, with the greatest difference being found between the graduates from an academic curriculum and the smallest differential appearing between male graduates from the vocational curriculum. Even though the incomes of Negro families were lower, it was found that a larger proportion of the mothers of Negro graduates had worked full-time during the high-school years of the respondents.

With these environmental factors in mind, the analysis turned to a discussion of the attitudes of the graduates toward their school experiences. Few differences were revealed between the Negro and white graduates in terms of their reasons for choosing the curriculum taken, their assessments of the preparation received, their evaluations of the schools' efforts to prepare them to secure a job after graduation, or the ratings of this preparation given by the immediate supervisors of the graduates in their last (or current) jobs.

Differences, however, were found on some of these measures among the curricula. As expected, the vocational graduates thought their schools had made a greater effort to prepare them to obtain employment and gave job and future-oriented reasons for having chosen the curriculum in the first place. The male Negro graduates from the general curriculum more often attributed their choice of curriculum to the advice of school officials than did whites. This indicates at least a reduction in the supply of potential Negro participants in the vocational curriculum, but more seriously it suggests an overt direction of Negroes away from the vocational curriculum.

Differences were also found among the graduates from the respective curricula in the types of jobs they had wanted, but within a given curriculum the Negro-white similarities outweighed the differences. Generally, the Negroes did not aspire to the higher level white-collar jobs to the same extent as white graduates did.

The actual employment experiences of the Negro and white graduates differed more substantially. The Negro males were more heavily represented in the manufacturing and service sectors than were whites, even though comparable proportions of each group had wanted jobs in these sectors. Similarly, the Negro girls were more heavily concentrated in these sectors than their expressed preferences had indicated, and the "wanted-secured" difference was especially large in the clerical occupations.

The methods of job search used successfully by the respective color groups did not explain the differences in occupational distributions, although a smaller proportion of Negro males were placed through the auspices of their schools than were whites. Both Negro and white vocational graduates were found to have used school placement services successfully far more often than graduates from the other curricula.

Given the differences in occupational distributions between Negro and white graduates one would expect to find wage level differences. This was the case, with the pay of the white graduates exceeding that of the Negroes in all comparisons. The white graduates started at higher average levels and appeared to have received larger increments, although time-adjusted indices of wage increments were too small to be conclusive. While the Negroes' pay was always found to be smaller, the male Negro graduates from a vocational curriculum were not in as poor a position, relative to the vocationally trained whites, as were Negro graduates from the other curricula relative to their white counterparts.

With these differences in occupational distributions and wage levels, it would be reasonable to expect differences in satisfaction. Generally, such differences were not found. Comparisons of satisfaction ratings given by the Negro and white graduates from a given curriculum revealed only minor differences. In particular, the male Negroes who graduated from an academic curriculum were less satisfied than their white counterparts with the types of work, pay received, and perceived promotional opportunity. Comparisons among the curricula, however, show the vocationally trained Negro males to have been more satisfied with the wage received and their perceived promotional opportunity.

The measures presented in this chapter combine to form a picture of the Negro graduate from the vocational curriculum who did not realize the same experiences as his white counterpart, but who was "better-off" than the non-vocationally trained Negroes. The intercurriculum differences were found to be greater among the male Negroes than among the females.

One would expect, on the basis of the foregoing analysis, to find the Negro vocational graduates to be more willing than the other Negro graduates to advise a young person today to follow the same curriculum that they had. The data do not reveal such a pattern. Relatively small differences were found in the proportions of Negro graduates from the respective curricula who would advise a young person to "take what I took." The explanation for this apparently contradictory finding probably lies in the inability of the vocationally trained Negroes to use the skills they had learned. As was shown in the highly controlled analysis of the graduates from specific vocational programs, the training-relatedness of the Negroes' jobs was very low. In fact, the related placement rate was low for most vocationally trained graduates (see Table 6.13 in Chapter 6). It is not surprising, therefore, that Table 9.30 shows only slightly more than one-half of the white males who took the vocational curriculum advising a young person to do the same, and 43 per cent of the Negro males giving similar advice. While the graduates evidenced general satisfaction with their own school and work experiences they were less than enthusiastic in advising other young people to replicate these experiences.

General Conclusions

No measure used in this study portrayed the Negro graduates from the vocational curriculum to have had a more favorable attitude toward their school experiences or to have benefited more by participation in that curriculum than their white counterparts. A number of indices, however, showed the Negroes who received vocational training to have benefited more than non-vocationally trained Negro graduates.

The influence of parental (and other) role models, the importance of reference groups, and the significance of the fulfillment (or not) of expectations have each been alluded to directly or by implication. It is clear that the needs and expectations of Negro students differ, at least in degree, from those of "typical" white middle-class youths.

Perhaps the nature of the educational institution is such that those who are not presently being served will have to adapt themselves to the requirements for success in that system. On the one hand, it is asserted that the individual can more easily adapt to the system than vice-versa. On the other hand, "the system" knows what the problem is and has the resources to seek a solution. Of course, the school system is but one institution in a myriad of relevant factors. School administrators have little or no control over many of the necessary elements involved in the successful utilization by the students of the services of the educational system. This fact, however, merely serves to strengthen the argument in favor of greater interaction among school, employer, and union officials to rationalize the market place for trained youth.

CHAPTER 10

GIRLS AND VOCATIONAL EDUCATION

Introduction

In recent years the vocational experience of women has been receiving increased attention. In the past there was a tendency to believe that women were only part of the labor force until they married. It is now recognized that to an increasing degree women are either remaining in, or re-entering, the labor force except for brief periods during the childbearing years. The old and weak argument that training given to young girls is wasted has less weight at this time than at any period in the past.

In light of this trend, how adequately have young women been trained to prepare for and control their employment experience? Much of the data necessary to answer this question has already been presented in Chapter 6, and, in general, it appeared that girls were being prepared adequately for the narrow roles that society has set for young women. This issue is discussed more fully in this chapter particularly in reference to the evaluation of high school experiences.

The evaluation of the vocational programs in the schools (Chapter 5) criticized the limited number of vocational options open to females, especially in the trade and industrial programs. This is the fundamental weakness of the vocational offerings for females. In effect, society, through its schools, tells young girls who do not plan to go on to college that they are not capable of obtaining and holding jobs other than as clerks and secretaries. Although this condition would seem to stifle aspirations and to induce frustration, young women do not seem to respond in these ways apparently because their vocational self concepts are so limited by the cultural conditioning to which they are exposed that they see very few occupations as appropriate to them.

These are the considerations that form the framework for the re-examination of some of the data presented in Chapter 6. In addition, questions on the respondents' attitudes towards their school experience are discussed. The responses of girls to some of these latter questions are not presented elsewhere in the report. The male responses to these questions are included in Chapter 8.

Reasons for Curriculum Choice

Table 6.2 in Chapter 6 showed the reasons that the respondents gave for choosing the courses they had taken in high school. The part of that table which sets forth the responses of females is reproduced as Table 10.1.

TABLE 10.1

Most Frequently Mentioned Reasons for Choosing High School Courses by Curriculum - Females Only

	Vocational	General	Academic
Reasons	%	%	%
Prepare for Post-Secondary Education	4	6	66
Prepare for a Job	50	52	8
Prepare for Future - Unspecified	12	13	6
Interest	18	12	6
Number	897	1291	488

Females were twice as likely as males to say they had selected courses to prepare for a job. This was an unexpected finding. It is males who are supposed to be more concerned with their careers. Girls, it was thought, would be more likely to select courses on the basis of interest or on the basis of a desire for easy courses or in response to the school's suggestion, and so forth. Such was not the case.

The much lower incidence of girls than boys who selected courses on the basis of interest probably reflects the limited offerings open to girls. Whereas boys can choose from a variety of trade, industrial, and technical courses as well as the commercial and distributive offerings, girls are typically limited to the latter two. The pattern of the responses to this question does suggest that the interests of many girls are not being met by typical vocational offerings open to them.

Vocational guidance can be most useful when it assists a person to select from among a wide number of possibilities those programs which are potentially most beneficial to the individual. When the number of possibilities is reduced, the usefulness of guidance is also reduced. Though the logic follows, the respondents did not follow the logic. Table 10.2 presents the ratings of the respondents' comments on the helpfulness of guidance.

Girls had less course options than boys, which should have led to fewer positive evaluations of guidance in course choices. The response patterns for those who received guidance, however, were almost identical for both sexes. About three-fourths of both the boys and girls who received guidance considered it helpful. The academic females were the most critical but not because of more limited choices. The number of course offerings open to them was just as many as for the academic males.

Since the majority of the girls who graduated from the vocational and general curricula reported that they chose their courses to prepare for jobs, most of them must have expected clerical jobs. The distribution of types of jobs wanted while in high school shown in Table 10.3 shows this was the case.

TABLE 10.2

Retrospective Evaluation of Guidance Received in Course Choices by Curriculum - Females Only

	Vocational	General	Academic
	%	%	%
Ratings of Helpfulness			
Very - Quite	26	27	30
Moderate	17	19	23
Not Helpful	16	17	24
No Rating	3	3	0
No Guidance	38	33	23
Total	100	100	100
Number	914	1295	496

TABLE 10.3

Occupational Distribution of Jobs Wanted by Female Respondents While in High School by Curriculum

	Vocational	General	Academic
	%	%	%
White collar	68	78	53
Professional	6	5	32
Semiprofessional	2	1	7
Clerical	59	71	13
Sales	1	1	1
Service	13	6	3
Manufacturing	7	1	-
Not Specified	12	15	44
Total	100	100	100
Number	903	1290	492

The girls who graduated from the general curriculum were actually more concentrated in their "wants" than the vocational graduates. Nearly three-fourths of the general curriculum graduates hoped to obtain clerical jobs. The vocational graduates' expectations were a bit more varied. Both of the occupationally-oriented curricula, however, reflect the limited vocational self concepts of females. These girls have learned their cultural lessons well. They themselves believe there are few jobs that are "appropriate" for young women.

Counseling on job plans was rated as less helpful than counseling on course choice. Over one-third of those who received counseling said it was not helpful (Table 10.4). More to the point, two-thirds of the girls who planned to obtain a job after high school reported they never discussed these plans with a guidance counselor.

TABLE 10.4

Retrospective Evaluations of Guidance Received on Job Plans by Curriculum - Females Only

	Vocational	General	Academic
	%	%	%
Ratings of Helpfulness			
Very - Quite	7	6	9
Moderate	14	13	19
Not Helpful	9	10	16
No Rating	3	2	2
No Guidance	67	68	54
Total	100	100	100
Number	904	1289	494

In summary, the female respondents who did not expect to go on to college selected their high school courses mainly to prepare for jobs. Few made a decision on the basis of interest in the courses. Most discussed their course choices with guidance counselors, but they did not discuss their job plans. These plans were highly concentrated in a few occupations that society deems appropriate for young women.

There were very few long-range considerations in the job plans of these young girls. Their immediate post-high school jobs were seen as interludes before they married and raised families. When asked in the course of the interview the types of jobs they would like to have in ten years, about three-fourths of all the female respondents replied "housewife." Apparently, vocational goals are regarded as subsidiary to the primary female roles of wife and mother.

Attitudes Toward School Experiences

There are few indications from the questions on school experiences that females were dissatisfied with the way they were treated by the schools. The question that was most revealing for the male respondents was whether they had ever felt "looked down on" because of the courses they took. The female responses to this question are shown in Table 10.5.

TABLE 10.5

Female Graduates Reporting They Felt Looked Down On By Curriculum

	Vocational	General	Academic
	%	%	%
Felt Looked Down On	11	11	5
Did Not	89	89	95
Total	100	100	100
Number	913	1293	496

Vocational and general curricula graduates did report these feelings somewhat more than academic graduates. The five per cent of academic graduates who reported feeling "looked down on" seems to be near the irreducible minimum. The same percentage appeared among academic males and vocational males from separate vocational high schools. It probably reflects the prevalence of certain personality characteristics which are found in any large sampling. The 11 per cent of the graduates from vocational and general curricula saying they felt "looked down on" seems to reflect, once again, and to a slight degree, the inferior image of vocationally-oriented instruction.

An analysis of the responses of females to this question by size of city, as was done for males, did not reveal sizable differences between large and small cities. Vocational education for females in the large cities was not always in a separate building. Much training in office occupations took place in the "academic" high schools. A test of the comprehensive versus separate vocational school debate, therefore, was not possible for female vocational education.

The other questions on attitudes towards school experiences, responses in Tables 10.6 and 10.7, showed little evidence of second-class status being attached to vocational education.

The question on whether it was harder to take part in school activities (Table 10.6) revealed no tendency for occupationally-oriented girls to feel excluded. The other question (Table 10.7) was concerned with how the respondents felt about being a part of their school. On this question there was a very slight tendency for the vocational and general curricula graduates to feel less a part.

TABLE 10.6

Female Graduates Reporting They Thought It Was Harder to Take Part in School Activities by Curricula

	Vocational	General	Academic
	%	%	%
Harder to Take Part	15	10	14
Not Harder	85	90	86
Total	100	100	100
Number	914	1294	495

TABLE 10.7

Female Graduates Reporting They Really Felt a Part of Their Schools by Curricula

	Vocational	General	Academic
	%	%	%
Felt a Part	85	84	89
Did Not	15	16	11
Total	100	100	100
Number	915	1294	494

The limited vocational offerings revealed in the preceding section on reasons for curriculum choice did not appear to be associated with negative attitudes towards school experiences. The questions on school experiences indicated few differences between the occupationally-oriented and academic girl graduates. These questions, of course, may not have been the most sensitive to detect differences in these specific attitudes. If there were strong negative feelings towards the school, they should affect the responses to most questions. But the questions presented above, since they referred mainly to acceptance by peers, may not have tapped attitude towards training. Therefore, two other questions that evaluate the schools' training more directly are presented.

The first asked the respondents specifically if they thought their high schools made a real effort to prepare them for jobs. Table 10.8 presents the results.

TABLE 10.8

Female Respondents Who Believed School Made Effort to Prepare Graduates for Job by Curriculum

	Vocational	General	Academic
	%	%	%
School Made Effort	85	81	62
School Did Not	13	17	35
No Answer	2	2	3
Total	100	100	100
Number	906	1287	487

Over eight out of ten vocational and general curricula graduates believed their schools had made effort to prepare them. These figures are quite similar to those for males reported in Chapter 6, Table 6.6.

Another question called for an indirect evaluation of the school preparation. It was posed in the form of advice to a young person. The respondents were asked if they would advise a young person to take the same curricula they had taken. The results, in Table 10.9, show the vocational graduate was most likely to recommend her curriculum. Once again, the male and female data were very similar with the exception that the female who graduated from the general curriculum was much more likely than her male counterpart to recommend the general curriculum. (The male and female data are presented in Chapter 6, Table 6.29).

TABLE 10.9

Most Frequent Recommendations of Female Graduates to a Young Person Just Starting High School

	Vocational	General	Academic
	%	%	%
Recommendations			
What I Took	69	60	58
Vocational	-	6	14
Academic	7	9	-
I Made Wrong Choice	5	5	5
Depends on Person	9	8	9
Number	906	1289	494

The more direct evaluations of school preparation agreed with the questions about peer acceptance. There was no evidence that the female graduates, despite their more limited options, were more dissatisfied with their school preparation than were the males. In almost all the comparisons, it was the vocational graduates, both male and female, who were most satisfied with their preparations.

Occupational Experiences

Since so many of the vocational and general curriculum graduates chose their courses to prepare for jobs, an immediate payoff would be whether they obtained the type of job they expected. Table 10.10 compares the occupational distribution of the types of jobs wanted and those actually obtained.

In general, the congruence of the "wanted-obtained" jobs for female vocational graduates is quite high, probably as high as the present inefficiencies of the labor market and the lack of clear goals among the job seekers will ever permit such distributions to be. There was less congruence among the general curriculum graduates and far less among the academic graduates, most of whom had planned to go on to college.

TABLE 10.10

Comparison of the Occupational Distributions of the Jobs
Females Wanted and Actually Obtained by Curriculum

	Vocational		General		Academic	
	Wanted	Actual	Wanted	Actual	Wanted	Actual
	%*	%	%*	%	%*	%
White Collar	77	70	92	77	95	74
Professional, Technical, Managerial and Kindred	9	4	7	4	70	14
Clerical	67	59	84	64	23	52
Sales	1	7	1	9	2	8
Service	15	15	7	10	5	14
Manufacturing	8	15	1	13	--	12
Specific Skill		5		2		3
Non-specific Skill		10		11		9
Total	100	100	100	100	100	100
Number	795	851	1096	1169	276	400

*Per cent of respondents who indicated a specific job type. No answers and undecided respondents eliminated.

When the types of jobs actually obtained are considered, regardless of the types wanted, the most significant result is the similarity among the curricula. It appears that girls who prepared themselves for employment immediately after graduation usually end up doing much the same type of work as academic graduates who prepared themselves to continue their education.

There may have been differences in the actual duties of jobs with the same titles. For example, two girls may both hold a job with the title of secretary, but one takes shorthand, keeps the books, and handles many administrative duties while the other does little but type. A difference of this type would not be revealed by the distributions in Table 10.10. If such differences did exist, however, they should have been related to these other measures of job experience: the respondents' and their direct supervisors' ratings of their preparation, measures of job satisfaction, pay, and reasons for leaving their first job. Each of these measures is examined below.

Preparation for employment was rated both by the respondents and by their direct supervisors. The respondents, however, rated their preparation for their first job and the supervisors rated the respondents on their current jobs. For about 40 per cent of the respondents their current jobs were their first job.

The respondents own ratings (Table 10.11) were as would be predicted: vocational graduates highest and academic graduates lowest. The supervisor ratings (Table 10.12) did not follow the same pattern. There were very few differences among the ratings. The differences that were present favored the vocational and academic curricula over the general curriculum.

TABLE 10.11

Female Ratings of Preparation for First Job by Curriculum

	Vocational	General	Academic
Use of Equipment			
Median	6.0	5.0	4.0
Mean	5.2	4.9	3.6
Job Skills			
Median	6.0	5.0	5.0
Mean	5.3	5.2	4.3
Number	457	891	209

Rating Scale:
1 - 3 Very little preparation
4 Average preparation
5 - 7 Excellent preparation

The ratings of female respondents of their job satisfaction, shown in Table 10.13, were very similar for all curricula. Very slight differences tended to favor the vocational and general curricula over the academic.

TABLE 10.12

Supervisors' Mean Ratings of the Preparation and Performance of Female Graduates by Curriculum

	Vocational	General	Academic
Occupational Knowledge	3.0	3.0	3.2
Manipulative Skills	3.4	3.2	3.4
Personal - Social Qualities	3.5	3.3	3.5
Work Qualities and Habits	3.5	3.4	3.6
Overall Performance	3.5	3.4	3.5
Overall Preparation	3.3	3.2	3.3
Number	556	679	287

Rating Scale:
1 - Unsatisfactory
2 - Below Average
3 - Average
4 - Above Average
5 - Outstanding

TABLE 10.13

Females' Ratings of Satisfaction in First Job by Curriculum

	Vocational	General	Academic
Work			
Median	6.0	6.0	5.0
Mean	5.1	5.2	4.9
Pay			
Median	4.0	4.0	4.0
Mean	4.1	4.2	4.0
Promotion			
Median	4.0	3.0	3.0
Mean	3.6	3.5	3.3
Number	865	1183	406

Rating Scale:
1 - 3 Dissatisfied
4 Average
5 - 7 Satisfied

For all of the measures of work experiences presented to this point the patterns of responses and their absolute values for the females parallel very closely the patterns and values among the males. For one measure -- earnings -- the similarities in absolute values did not hold.

Table 10.14 presents the pay received by the female respondents in their first jobs and the amount of time they spent on these jobs. While all of the curricula received the same median starting pay, this pay was lower, by 10 cents, for the females than for the males. The females were also lower on the leaving (or current) pay. If there were any curriculum differences in pay, they seemed to favor the academic graduates who held their jobs a shorter time but made as much money.

Some of the reasons the academic graduates held their first jobs for shorter periods are shown in Table 10.15. Academic graduates were more likely to have been promoted or to have left to return to school. Vocational and general curricula graduates were more likely to have left to get a better job or because they were dissatisfied.

The measures of work experience, like the questions about school experience, show that the vocational and general curricula female graduates thought they were better trained and might be a little more satisfied with their work. However, they did not make more money, or receive more promotions, or have their supervisors rate them higher. Vocational graduates obtained mainly the types of jobs they wanted while in school, general curriculum graduates did so to a lesser degree, and academic graduates hardly did so at all. Yet the distributions of actual jobs for the three curricula were quite similar.

TABLE 10.14

Female Starting and Leaving (or Current) Pay* and Length of Time in First Job by Curriculum

Starting and Leaving Pay

	Vocational		General		Academic	
	Starting	Leaving	Starting	Leaving	Starting	Leaving
Lowest Decile	$ .70	.80	.70	.80	.80	1.00
Highest Decile	1.80	2.10	1.70	2.10	1.90	2.10
Total Median	1.20	1.40	1.20	1.40	1.20	1.40
Number	837	801	1155	1131	391	382

Length of Time in Job

	Vocational	General	Academic
Months in Job			
Median	13.0	13.0	11.0
Mean	17.7	17.1	15.6
Number	869	1131	411

*Gross Hourly Equivalents, Medians

TABLE 10.15

Reasons Females Gave for Leaving First Job by Curriculum

	Vocational	General	Academic
	%*	%*	%*
Still in Job	(354)	(486)	(160)
Advancement Within Company	18	16	23
Got a Better Job	18	16	10
Dissatisfied	24	24	20
Employer Action (laid off, fired, job abolished)	11	11	8
Return to School	4	4	18
Others	25	29	21
Total	100	100	100
Number	491	682	240

*Per cents based only on those who left their first job.

Summary and Conclusion: Has Vocational Education Served Females Adequately?

The conclusion of this chapter is stated in the form of a question because it is not clear if vocational education has served females. The basic question that this chapter explored was whether the limited number of vocational programs open to young girls affects their school and vocational experiences.

It was found that vocationally-oriented young girls were twice as likely as males to choose courses that would prepare them for jobs. Conversely, young girls were less likely to choose them because of interest. This evidence is unfavorable to vocational education.

Girls received as much, or as little, counseling in the course choices and job plans as males, and they were equally favorable concerning its helpfulness. The counseling, however, did not seem to have caused the girls to make any long-range career plans. They considered their primary roles to be wife and mother. This evidence is equivocal.

Taking the vocational curriculum did not seem to be associated with any particularly negative attitudes towards high school experiences. Female vocational graduates were less likely than males to have felt "looked down on" or excluded from school activity. This evidence is favorable to vocational education.

Female vocational graduates obtained the types of jobs they had wanted while in high school, and they rated their preparation for these jobs higher than girls from the other curricula. On the other indices of work experience --

job satisfaction, supervisor ratings, pay, and reasons for leaving first job -- there are few differences favoring any of the curricula. This evidence ranges from favorable to equivocal.

When the favorable and unfavorable evidence is added up, vocational education does appear to be doing an adequate job, but it is being restricted by the prevailing stereotypes as to the proper occupations for women. These are the same stereotypes that restrict the vocational self concepts of young girls. Few jobs are perceived as appropriate, and even these are considered subsidiary to the real female roles of wife and mother.

It has been established for some time that there are no basic differences in intelligence between the sexes. When given the opportunity, women have proved they can handle almost any job that a man can. With the increasing demand for highly skilled individuals, society cannot long afford the waste of human resources caused by the prevailing limitations on the utilization of female abilities.

CHAPTER 11

SELF CONCEPT IN VOCATIONAL DEVELOPMENT

Young people who do not go on to some type of post-high school education usually hold many jobs for relatively short time periods in the years immediately after high school. During these years, they engage in more job changes than in any other period of their lives. This trial behavior is more marked in males than in females because of their greater commitment to their occupational decisions, and because males have more difficulty in finding jobs where they can apply their high school training. This process of selecting and stabilizing in a job has been the subject of many investigations.[1]

While these investigations have described the problems young people face in making the transition from school to job, they have done little to explain why a young person selects the different jobs he enters and why he remains in one job rather than another. Super attempted to explain these decisions by a theory of self-concept implementation.[2] Super's theory conceives of an individual as possessing a number of self-attributes -- ideas about his own personal characteristics. Some of these self-attributes he considers to be relevant to what people do in their jobs. He selects an occupation that he sees as offering the greatest congruence between his self-attributes and the requirements of that occupation. If in holding a job he increases his information about other jobs or gains more insight into his own vocationally relevant self-attributes, he may then move to another job that he sees as offering more self-concept implementation.

This chapter reports a study that attempted to measure some of the variables posited in Super's theory. Self-concept implementation was defined by measuring the discrepancies between the subjects' ratings of ideal jobs and actual jobs they had held. If implementation had taken place, it was reasoned that subjects who had been in the labor market five years should on the average have had lower discrepancy scores than subjects who had been in it for four years. Subjects who had been working four years should have had lower scores than those who had been working three years, and so on.

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[1] Cf. Miller, D.C., and Form, W.H. Industrial Sociology. New York: Harpers, 1951.

[2] Super, D.E. A Theory of Vocational Development. American Psychologist, 1953, 8, 185-190.

Discrepancy scores were also analyzed by a number of other variables including job satisfaction, supervisor ratings, IQ, and high school curriculum to see if these were associated with self-concept implementation. Super has stated that the greater the degree of implementation, the greater the degree of satisfaction with a job. Job satisfaction was measured with the Job Descriptive Index[3] and by the subjects' rating of their satisfaction on a seven-point scale. These separate measures were correlated with the measure of implementation, discrepancy scores, to see if satisfaction increased with greater implementation.

It was anticipated that workers who perceived considerable congruence between their self attributes and the requirements of their jobs would be good workers. Ratings by the direct supervisors were obtained on several dimensions of the subjects' job performance. These ratings were also correlated with the measure of implementation.

The relationship of high school curriculum and of individual ability to vocational development were also studied. The choice of a vocational curriculum suggests some type of occupational choice and commitment. If it is a curricular decision made with full awareness of its implications, it should also indicate a more crystallized vocational self-concept. Thus, the student who decides on a vocational curriculum was expected to demonstrate more insight than students in other curriculums into the type of person he is and the type of work he wishes to do. The selection of the academic curriculum usually indicates a plan to go on to other post-high school training. Additionally, the academic student is usually not given training in employable skills. The general curriculum represents a compromise between the specific occupational plans of the vocational student and the educational plans of the academic student. Often the undecided students, the ones with not quite enough ability to be "college-bound" and not clear enough vocational goals to be vocational students, enroll in the general curriculum.

Thus, the characteristics of typical students in the three curriculums provided a convenient criterion for testing whether such differences were related in predictable ways to differences between the graduates' ratings of ideal jobs and of actual jobs they have held.

Ability was selected as a specific variable for study for two reasons. First, most research on vocational development has been done with high ability populations. It was considered useful to see if generalizations derived from previous research were applicable to more typical groups. Secondly, it was considered important to determine whether higher levels of ability gave their possessors more opportunity for self-concept implementation.

SECTION I: METHODOLOGY

Sample

The sample used in this study was randomly drawn from all the males interviewed in the larger study. The study was limited to males because almost all previous theory building and instrument development has been based on data gathered from male subjects. Because sampling procedures prevented the assignment of specific subjects to specific interviewers, the following instructions were written: (In the blank space in the following instructions a randomly determined number from one to four was written for each interviewer.)

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[3] Locke, E.A., Smith, Patricia C., and Hulin, D.L. Cornell Studies of Job Satisfaction: V. Scale Characteristics of the Job Descriptive Index, Ithaca, New York: Cornell University, 1963, (Mimeo).

> The Job Rating Scale is a special scale that is to be used with every fourth male you interview. You should start with the ___ male you select to interview. Then use it with every fourth male that you select after that one. We stress "select" for you may select a male and not be able to reach him. Do not use it with the next male you interview. Instead use it with the male you substitute for the one you cannot reach. By using it only with the males you select, we avoid the bias of more use with the easier-to-reach respondents. Once you select a male, he or his substitute becomes the one with whom you should use the scale.

Table 11.1 presents the total number interviewed for this part of the study, the number of substitutes, and the per cent of the original sample interviewed in those cities where a direct follow-up was used for all interviews. Table 11.1 also presents the number of interviews completed in the three large cities where a different sampling method, described in Part I, Chapter 2, was used.

TABLE 11.1

Sample Composition by Cities in Which Study was Conducted

	Total Number Interviewed	Number of Substitutes	% Original Sample Interviewed
Adam	49	18	63
Baker	23	3	87
Clark	42	12	71
Kimball	68	25	67
Lewis	42	10	76
Miller	29	6	79
Pierce	142	*	*
Quinn	53	*	*
Randall	40	*	*
Total	488	74	71**

* Data not applicable because of different techniques of sampling.

** Based only on cities where data were applicable.

Instruments

The instruments used in the larger study were also used for this phase. One additional instrument, the Job Rating Scale, was specifically designed to measure self-concept implementation. It consisted of 18 items adapted from O'Connor and Kinnane's[4] factor analysis of the Work Values Inventory plus three additional items suggested by pre-testing the instrument. Each item was found to correlate significantly with the total score. The reliability of the scale was determined by the test-retest of a group of high school seniors with a week between the two administrations. The reliability coefficient was .84. The intercorrelations of all 21 items were factor analyzed and yielded four factors which could, in general, be explained by the familiar intrinsic-extrinsic dichotomy of work values plus an additional factor which seemed to reflect masculinity and a desire for physical manipulation as opposed to symbolic manipulation or interpersonal interaction.

This scale was the measure of self-concept implementation. The subjects used it to describe their conceptions of an ideal job and to describe actual jobs they had held. The sum of the differences between the two sets of ratings yielded the subjects' discrepancy scores for each job they had held. These scores were analyzed by the variables discussed below to test certain predictions derived from self-concept theory.

SECTION II: RESULTS

Self-Concept Implementation and Year of Graduation

The first prediction was that young people who have been working longer would have greater self-concept implementation in their jobs. The reasoning was that greater experience should give the young person a clearer understanding of his own work-relevant characteristics and more information about the types of occupations in which these characteristics would find expression. The data, however, did not confirm this prediction. The analysis of variance of the discrepancy scores by year of graduation is shown in Table 11.2.

Though the F-ratio was not significant, the differences among years were, in general, in the predicted direction. Older graduates tended to have lower scores. To see if any of these differences were significant, the means were tested by Duncan's multiple range test. The Duncan technique computes the shortest significant range for a set of ordered means. It then tests whether any of the differences exceeds this range. Even the largest difference, between the 1963 and 1960 means failed to reach significance.

An additional test was conducted to hold the effect of job order constant. It seemed possible that an individual graduated in 1960 who has held only one job might rate that job quite differently than one who was graduated in 1964 and had held only one job. So the subjects who had held only one job were grouped by year graduated and their mean discrepancy scores compared in Duncan's multiple range test. This analysis also failed to yield any significant differences.

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[4] O'Connor, J.P., and Kinnane, J.F. A Factor Analysis of Work Values. Journal of Counseling Psychology, 1961, 8, 263-267.

TABLE 11.2

Analysis of Variance of Job Rating Scale Discrepancies Scores for Last Held Job Grouped by Year of Graduation and Associated Statistics

Source	df	Mean Square	F	p.
Year of Graduation	4	833.78	.92	>.05
Error	474	905.84		

Year of Graduation

	1960	1961	1962	1963	1964
Mean	53.09	58.87	56.52	61.45	61.24
SD	28.10	32.25	26.65	28.61	32.74
Number	69	82	94	95	139

Note: No significant difference among means at .05 level when tested by Duncan's multiple range test.

A final analysis was conducted to see if average ratings of an ideal job declined with the number of years since the subject was graduated. Almost all of the 21 items in the Job Rating Scale are written so that the more positive rating is a high percentage of time. For example, I would most like a job that -- paid well, was secure, caused my friends to respect me, let me make beautiful things. High ratings to these items suggest high job aspirations. It might be expected that more recent graduates would tend to rate their ideal jobs more optimistically. An older graduate's concept of an ideal job may have been compromised by his work experience and he may now expect less of an ideal job. The available evidence does not support such conjectures. The data are shown in Table 11.3.

Year of graduation was significantly related to differences among the ideal ratings. However, the differences were not quite as one might expect. It is true that the lowest mean score was obtained for the 1960 graduates, but the highest was for 1961 and the second lowest for 1964. The mean for 1961 was significantly higher than all the others, but none of the remainder differ significantly from one another. Over the five year period covered by this study, graduates' ratings of an ideal job did not change in any predictable direction.

Self-Concept Implementation and Number of Jobs Held

The second prediction tested was that the degree of self-concept implementation increases with each successive job the subject holds. Since there was only one contact with the subjects, ratings on their previous jobs had to be obtained by recall. This, of course, makes the ratings more suspect, because of the opportunities for selective retention and a desire to justify one's present job to affect the subjects' recall of previous jobs. With these qualifications in mind, the data shown in Table 11.4 can be examined. It is clear that more recently held jobs do have lower discrepancy scores indicating greater implementation. It is interesting to note that the mean for

TABLE 11.3

Analysis of Variance of Ideal Job Ratings Grouped by Year of Graduation and Associated Statistics

Source	df	Mean Square	F Ratio	p.
Year of Graduation	4	1383.25	3.19	<.05
Error	474	433.13		

Year of Graduation

	1960	1961	1962	1963	1964
Mean	163.77	175.29	167.55	168.31	166.67
SD	23.68	19.61	22.31	18.56	20.38
Number	69	82	94	95	137

Significant differences by Duncan's multiple range test

1961 > 1960, 1964, p. <.01

> 1962, 1963, p. <.05

subjects who had held only one job was very close to the current job means of all the other subjects. The means are also presented for the subjects having held five jobs. The trend for these subjects was very similar to those of the other multiple job subjects, but is not significant because of the limited sample. Most differences among the job means for subjects with two, three, and four jobs are significant. All means that differ significantly, as tested by Duncan's multiple range test, are indicated.

In the analysis of the data relating to the first prediction, the relationship between year of graduation and ideal job ratings was examined. A similar analysis was conducted to see if number of jobs held was associated with changes in ideal job ratings. The results are presented in Table 11.5.

It will be recalled that high scores reflect high job aspirations. Before examining the data, one would expect that lower scores would be associated with more job experience. Table 11.5 does not support such an assumption. Only one significant difference occurs and that is between subjects who have held one and two jobs with those holding one job being lower.

Self-Concept Implementation and Job Satisfaction

The third prediction was taken directly from Super: ". . . the degree of [job] satisfaction attained is proportionate to the degree to which the self-concept has been implemented."[5]

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[5] Super, op. cit., p. 189.

TABLE 11.4

Mean Job Rating Scale Discrepancy Scores by Job Held for Subjects Who Held One to Five Jobs

		Job 1	Job 2	Job 3	Job 4	Job 5	N	Error Variance	Significant Differences*	p.
Ss with	Mean	59.38					258	908.98	-	-
1 Job	SD	30.15								
Ss with	Mean	75.30	57.17				124	1057.84	2 <1	<.01
2 Jobs	SD	32.81	32.24							
Ss with	Mean	86.57	79.26	60.06			69	941.47	3 <1 3 <2	<.01 <.01
3 Jobs	SD	30.31	31.63	30.32						
Ss with	Mean	79.37	84.00	64.43	55.57		30	690.01	4 <1 4 <2	<.01 <.01
4 Jobs	SD	24.65	29.09	29.51	20.86				3 <1 3 <2	<.05,<.01
Ss with	Mean	85.43	79.29	69.14	59.43	60.00	7	626.46	-	-
5 Jobs	SD	34.98	21.81	26.44	19.96	18.33				

*Notations are to be read: Mean for job X is less than mean for job Y. Any difference not indicated is not significant when tested by Duncan's multiple range test.

TABLE 11.5

Analysis of Variance of Ideal Job Ratings by Number of Jobs Subjects Have Held with Associated Means

Source	df	Mean Square	F	p.
Number of Jobs Held	4	881.10	2.01	$>.05$
Error	483	437.41		

Number of Jobs Held

	1	2	3	4	5
Mean	165.85	171.94	171.04	167.63	167.29
SD	21.72	16.58	23.38	24.43	17.62
Number	255	124	69	30	7

Significant differences by Duncan's multiple range test
Mean Job 1 $<$ Job 2, $p. < .05$

Two measures of job satisfaction were obtained. One, the Job Descriptive Index is a standardized measure of satisfaction in five areas: work, pay, supervision, promotion, people. The other was the subject's own rating on a seven-point scale of his satisfactions in these areas. The Job Descriptive Index was obtained only for the subject's latest job; the ratings were obtained for each job the subject held. These correlations are based on the subjects' last held job, whether this job was their first to fifth. The reduced N results from the elimination of subjects with missing data on any of the variables before the satisfaction measures were intercorrelated.

The intercorrelations of the two measures were analyzed by the multitrait-multimethod format suggested by Campbell and Fiske.[6]

The model formulated by Campbell and Fiske allows a matrix of correlations to be analyzed for convergent and discriminant validity. Before presenting this analysis, a description of the table is appropriate. The split-half reliability coefficients, corrected by the Spearman-Brown formula, for the areas of the Job Descriptive Index measures are shown in parentheses. These values are based on a one-quarter sample of 120. Since there was only one contact with the subjects, it was not possible to obtain reliability data on the ratings. In the solid triangles are the correlations of measures of different traits made using the same method. Campbell and Fiske call these heterotrait-monomethod triangles. In the dotted triangles are correlations of measures of different traits made using different methods. These are called heterotrait-heteromethod triangles. In the diagonal between the dotted triangles are measures of the same traits made using different methods. This is called the validity diagonal.

The criterion of convergent validity is that the values in the validity diagonal are significantly different from zero. This shows that different

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[6] Campbell, D.T., and Fiske, D.W. Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix. Psychological Bulletin, 1959, 56, 81-105.

TABLE 11.6

Intercorrelations of Two Different Measures of Five Areas of Work Satisfaction for Subjects' Last Held Job

Number = 433

Decimals omitted

		A_1	B_1	C_1	D_1	E_1	A_2	B_2	C_2	D_2	E_2
JDI											
Work	A_1	(86)									
Pay	B_1	33	(77)								
Supervision	C_1	49	31	(92)							
Promotion	D_1	52	38	44	(91)						
People	E_1	53	29	48	40	(92)					
Ratings											
Work	A_2	55	26	35	99	33					
Pay	B_2	24	57	20	30	23	45				
Supervision	C_2	37	25	53	40	30	42	27			
Promotion	D_2	45	35	34	64	30	54	46	45		
People	E_2	27	16	27	28	46	45	23	43	32	

Note: All coefficients significant .05 level or less.

measures of the same traits are yielding similar estimates of these traits. All values in the diagonal of Table 11.6 are significant at less than the .01 level.

There are two criteria of discriminant validity. The first is that each value in the validity diagonal exceed every value in the same column and row of the heterotrait-heteromethod triangles. This is to show that different measures of the same trait correlate more highly than different measures of different traits. In other words, the Job Descriptive Index measure of work satisfaction should correlate more highly with the subjects' ratings of work satisfaction than with any of the other subjects' ratings. Table 11.6 satisfies the first criterion completely. The second criterion is that each value in the validity diagonal should exceed each value in the same column and row of the heterotrait-monomethod triangle. This means that different measures of the same trait should correlate more highly than measures of different traits made using the same method. That is, the common variance in the correlation should reflect the trait being measured more than it reflects the characteristics of the measuring technique, the method variance. This criterion, according to Campbell and Fiske[7] and Humphreys[8] is rarely met in research in individual differences. Out of 40 comparisons possible in Table 11.6, the data fail to meet this criterion in only two cases.

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[7] Ibid.

[8] Humphreys, L.G. Note on the Multitrait-Multimethod Matrix. Psychological Bulletin, 1960, 57, 86-88.

Despite considerable common variance across the measures they do demonstrate adequate convergent and discriminant validity. The data in Table 11.6 again, were based on the subjects' current or last held job. The measures were also correlated separately for subjects in their first to fourth jobs. These separate job analyses show much the same pattern of relationships as the combined table.

Despite considerable common variance across the measures they do demonstrate adequate convergent and discriminant validity. The more pertinent question, however, is how well the satisfaction measures correlate with the measures of self-concept implementation. In Table 11.7 are presented three types of correlations of the satisfaction and discrepancy measures: Pearson product-moment $\underline{r}$'s, partial $\underline{r}$'s of each variable with its common variation with the other nine variables removed, and the multiple $\underline{R}$ of all 10 variables with the discrepancy score. Because of the elimination of high degrees of common variance in the partial $\underline{r}$'s, their values are lower than the Pearson $\underline{r}$'s in all but two cases.

It will be noted that all the Pearson $\underline{r}$'s are negative, indicating high satisfaction scores are associated with low discrepancy scores. This is as predicted for low discrepancy indicates high implementation. Some of the partial $\underline{r}$'s are positive, indicating high satisfaction is associated with high discrepancy. Though only one of these direct relationships is significant, their contribution does lower the correlation shown for all subjects combined on their last held job.

The separate correlations of the two measures of job satisfaction, the Job Descriptive Index and the subjects' ratings, with the discrepancy scores, are in many cases quite similar. For all subjects combined on the last held job, the largest difference is .06 between the two correlations of people satisfaction. None of these differences is significant; the test used corrected for the degree of common variance in the separate correlations. These similarities suggest that the degree of ideal job - actual job discrepancies may be able to account for a predictable amount of job satisfaction.

The multiple correlation of the 10 job satisfaction measures with the discrepancy scores provide an estimate of how much variance can be explained. The $\underline{R}$ for the last held job is .61, but this is not much larger than the .52 Pearson $\underline{r}$ between the Job Descriptive Index measure of work satisfaction and the discrepancy scores. To test the relative contribution of each of the measures, $\underline{R}$'s were recalculated successively dropping those variables which accounted for the smallest amount of the variance. Five variables were dropped before there was a significant reduction in explained variance. Those dropped were the two measures of people satisfaction, the Job Descriptive Index pay measure and the subjects' ratings of supervision and promotion. With these five measures out of the equation there was no significant decrease in the $\underline{R}$. As each of the remaining five variables were dropped from the $\underline{R}$, there was a significant reduction in the explained variance. The work measures, both Job Descriptive Index and subjects' rating, explained the greatest proportion of the variance.

Self-Concept Implementation and Supervisor Ratings

The fourth prediction related to the area of work competence. It seemed reasonable that workers with greater self-concept implementation would be rated higher on work performance by their direct supervisor. To test this prediction, supervisor ratings were obtained for 44 per cent of the sample

TABLE 11.7

Correlations of Satisfaction Measures with Job Rating Scale Discrepancy Scores for All Subjects Grouped in Last Held Job and by Jobs One to Four Separately

		Work		Pay		Supervision		Promotion		People			
		JDI	Rating	JDI	Rating	JDI	Rating	JDI	Rating	JDI	Rating	R**	N
Last Held Job	Pearson r	-52*	-48*	-34*	-35*	-41*	-36*	-45*	-43*	-38*	-32*	.61*	434
	Partial r	-18*	-14*	-06	-08	-10*	-01	-11*	-03	-04	-06		
Subjects in 1st Job	Pearson r	-52*	-40*	-33*	-27*	-38*	-32*	-44*	-44*	-45*	-26*	.59*	228
	Partial r	-19*	-08	-08	-04	-02	-04	-05	-09	-16*	01		
Subjects in 2nd Job	Pearson r	-59*	-62*	-37*	-48*	-53*	-46*	-54*	-40*	-27*	-41*	.74*	113
	Partial r	-19	-22*	-11	-15	-22*	04	-23*	08	20*	-16		
Subjects in 3rd Job	Pearson r	-40*	-51*	-22	-38*	-35*	-31*	-42*	-50*	-36*	-43*	.57*	60
	Partial r	-05	-25	15	-10	-14	22	-24	-07	18	-30*		
Subjects in 4th Job	Pearson r	-32	-64*	-55*	-54*	-50*	-47*	-26	-32	-25	-12	.72*	26
	Partial r	16	-46	02	-32	-62*	-04	-11	21	-09	26		

Decimals omitted

* Significant at .05 level or less.

** Corrected for N and number of variables in equation.

interviewed. Most of the ratings in Randall and Quinn and some in Pierce were obtained by the interviewers at the time they visited the subject's place of employment; in the other cities they were obtained by mail.

The scale used for obtaining the ratings listed four areas of the subject's performance: occupational knowledge, manipulative skills, personal and social qualities, and work qualities and habits. Mean ratings were calculated for each of the four performance areas for each subject by summing and dividing by the number of items rated. Besides the work areas, the scale called for two summary ratings, one on the subject's overall performance and the other on the subject's overall preparation for the job.

The halo effect is seen in the considerable common variation the matrix of intercorrelations in Table 11.8 indicates. Overall preparation shows the lowest intercorrelation.

TABLE 11.8

Intercorrelations of Supervisor
Ratings of All Subjects on Whom Ratings Were Obtained

		A	B	C	D	E
Occupational Knowledge	A					
Manipulative Skills	B	47				
Personal-Social Qualities	C	49	66			
Work Qualities and Habits	D	37	66	66		
Overall Performance	E	42	65	59	63	
Overall Preparation	F	16	35	29	29	56

Number = 214

Decimal omitted

All correlations significant .01 level or less

As is often found with ratings, there was a strong tendency of the raters to select the middle, or average position. Low ratings were especially avoided. The mean ratings, combined for all jobs and for jobs one to three separately, fall in a range of 2.64 to 3.48. Table 11.9 presents the means and standard deviations.

To try to overcome some of the limitations inherent in the use of the ratings, the supervisor ratings for the highest and lowest ranking quarter of the distribution of Job Rating Scale discrepancy scores were compared. The means of the six supervisor ratings were computed separately for each group and t-tests were run on the differences. Table 11.10 presents the relevant statistics.

Even dealing with these extreme groups only two of the differences, work qualities and overall performance, are significant. A case could probably be

TABLE 11.9

Summary Statistics for Supervisor Ratings
for All Subjects Grouped in Last Held Job and
by Jobs One to Three Separately

			Job Subject Was Holding					
	Last Held Job		Job 1		Job 2		Job 3	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Occupational Knowledge	3.04	.91	3.03	1.00	2.97	.90	2.92	.95
Manipulative Skills	3.38	.64	3.40	.73	3.37	.56	3.25	.49
Personal-Social Qualities	3.44	.65	3.47	.76	3.35	.64	3.36	.54
Work Qualities and Habits	3.43	.72	3.48	.72	3.36	.70	3.38	.75
Overall Performance	3.37	.94	3.42	.88	3.33	.90	3.11	1.27
Overall Preparation	2.99	1.07	3.11	.98	2.94	.89	2.64	1.28
Number	214		111		55		29	

made that these are the areas where self-concept implementation would be most likely to be revealed. While all the differences are in the predicted direction, the supporting evidence is rather limited. The correlational analysis conducted was also suggestive but not conclusive.

Correlations were run on all subjects for whom supervisor ratings had been obtained. The six supervisor ratings were correlated with the Job Rating Scale discrepancy scores. Partial correlation holding five of the ratings constant, and multiple correlations with the discrepancy score as the dependent variable were also calculated. These values are presented in Table 11.11. One multiple correlation value is not shown since when it was corrected for the N and number of variables in its equation a negative square root resulted.

Eight of the 52 correlations are significant. All significant correlations are in the predicted direction. Many of the non-significant correlations are also in the predicted direction. However, none of the partial r's are significant nor is the explained variance increased by calculating multiple R's. The fourth prediction was only partially supported.

Self-Concept Implementation and Individual Ability and Curriculum Choices

There were two predictions made concerning the association between self-concept implementation and individual ability and curriculum choice. It was

TABLE 11.10

Significance Test of Differences Between Supervisor Ratings for Lowest and Highest Ranking Quarters on Job Rating Scale Discrepancy Scores for Last Held Job

	Lowest Quarter Mean	Lowest Quarter SD	Highest Quarter Mean	Highest Quarter SD	Difference in Means	t	p.*
Occupational Knowledge	3.14	.87	2.96	.94	-.18	1.03	>.05
Manipulative Skills	3.48	.57	3.32	.60	-.16	1.39	>.05
Personal-Social Qualities	3.53	.59	3.42	.60	-.11	.98	>.05
Work Qualities and Habits	3.63	.65	3.33	.66	-.30	2.32	<.01
Overall Performance	3.67	.75	3.22	.94	-.45	2.82	<.01
Overall Preparation	3.15	1.04	2.96	1.07	-.19	.90	>.05
N	55		55				

* One-tail test

predicted that subjects of high ability because of increased information about, and freedom of, choice in the labor market would experience greater self-concept implementation. It was also predicted that subjects who had selected a vocational curriculum in high school would show greater implementation in their jobs. While these predictions were made separately, it was found necessary to analyze them together, because the academic (college preparatory) curriculum had a disproportionate number of higher IQ subjects. IQ, taken from school records, was used as the definition of ability. School record data were available for 70 per cent of the sample interviewed. Grouped IQ data by curriculum are shown in Table 11.12.

It can be seen that the vocational and general graduates are essentially normal populations. The per cent in the average IQ category, 90 to 109, is a little higher and the upper IQ per cent somewhat lower than would be found in an unselected population. This finding is not surprising for a group, all of whom graduated from high school and none of whom went on to college. Few of the academic graduates went to college either, but the proportion of 110 or higher IQ's reflects the selectivity of this curriculum.

To test the degree of variability associated with each of these classifications, the subjects were grouped as shown in Table 11.12 and a three by three analysis of variance was run on the Job Rating Scale discrepancy scores. Table 11.13 presents the analysis of variance and relevant means.

TABLE 11.11

Correlations of Supervisor Ratings with Job Rating Scale Discrepancy Scores for All Subjects Grouped in Last Held Job and by Jobs One to Three Separately

		Last	Job Subject Was Holding		
		Held Job	Job 1	Job 2	Job 3
Occupational Knowledge	Pearson r	-12*	-20*	08	-05
	Partial r	-04	-14	14	09
Manipulative Skills	Pearson r	-13*	-16	06	-39*
	Partial r	03	-09	15	-14
Personal-Social Qualities	Pearson r	-13*	-08	-07	-22
	Partial r	02	04	-02	05
Work Qualities and Habits	Pearson r	-17*	-07	-16	-40*
	Partial r	-06	08	-16	-16
Overall Performance	Pearson r	-20*	-16	-14	-31
	Partial r	-12	-12	-07	-01
Overall Preparation	Pearson r	-08	-03	-14	-21
	Partial r	03	09	-07	-12
Multiple R**		14	16	***	18
N		214	111	55	29

* Significant at .05 level or less

** Corrected for N and number of variables in equation

*** Imaginary number, correction resulted in a negative square root

TABLE 11.12

IQ Groups by Curriculum of Graduation

	Curriculum					
	Vocational		Academic		General	
	N	%	N	%	N	%
IQ						
110 or more	23	14	32	38	16	17
90 to 109	107	67	41	49	60	63
89 or less	29	18	11	13	19	20
Total	159	99	84	100	95	100

TABLE 11.13

Analysis of Variance of Job Rating Scale Discrepancy Scores for Last Held Job Grouped by Curriculum and IQ and Associated Means

Source	df	Mean Square	F	p.
Curriculum	2	1133.70	1.36	>.05
IQ	2	3250.60	3.89	<.05
Error	333	835.64		

Cell, Row, and Column Means

	Curriculum			Row Totals	
IQ	Vocational	Academic	General	Mean	n
110 or more	47.39	56.72	52.63	52.44	71
90 - 109	55.07	62.27	57.05	58.09	208
89 or less	63.48	61.27	72.05	66.80	59
Column Mean	55.74	62.06	59.54	59.11	
Totals n	159	84	95		338

Significant differences by Duncan's multiple range test:

Cells: Vocational 110+ and 90 - 109 < General 89 or less, p. < .05

Rows: 110 or more, 90 - 109 < 89 or less p. < .01, < .05

Since the cell frequencies are not equal, a least squares procedure was used. In this procedure, a preliminary analysis that tests the significance of the interaction is first computed. The interaction was not significant, F = .46. The lack of a significant interaction indicated the disproportionate frequencies were not significantly influencing the main effect sum of squares. The least square procedure thus assumes the interaction is zero. It is dropped from the analysis and its degree of freedom is added to those associated with the error estimate. Hence there is no interaction term in Table 11.13 and there are 333 degrees of freedom for the error estimate.

The F ratio for the IQ classification in Table 11.13 is significant, the ratio for the curriculum classification is not. Duncan's multiple range test was used to test the significance of the difference between the row, column, and cell means. The mean discrepancy scores of subjects with an IQ of 110 or above was significantly lower than those with an IQ under 90 at the .01 level. At the .05 level, subjects with an IQ in the range 90 to 109 had a significantly lower mean than those under 90. This indicates high ability subjects had greater self-concept implementation. Low IQ general students had significantly higher mean discrepancy scores than high and average IQ vocational students. None of the other cell means differed significantly nor were any of the column means significantly different.

An additional measure of ability was available for the same subjects for whom IQs were obtained. This was an overall rating of the grades the subjects had obtained while in high school. This rating was made by school clerks from the grades listed on the subjects' permanent record cards. There were four ratings possible: Excellent, meaning the subject received mainly A's or the highest mark possible; Good, mainly B's; Fair, mainly C's, average grades; Poor, mainly D's, not failing but just passing. Since these ratings and IQs correlated only .26, it was decided to run a separate analysis comparing Job Rating Scale discrepancy scores when classified by curriculum and grade ratings. The results of the analysis of variance based on this classification are shown in Table 11.14.

TABLE 11.14

Analysis of Variance of Job Rating Scale
Discrepancy Scores for Last Held Job Grouped by
Curriculum and Grade Ratings and Associated Means

Source	df	Mean Square	F	p.
Curriculum	2	855.10	.97	> .05
Grade Ratings	1	722.60	.82	> .05
Error	339	879.97		

Cell, Row, and Column Means

		Curriculum			Row Totals	
Grade Ratings		Vocational	Academic	General	Mean	n
Excellent-Good		47.09	65.15	59.86	55.78	94
Fair-Poor		58.36	56.95	59.87	59.04	249
Column	Mean	54.43	58.83	59.87	57.41	
Totals	n	160	85	98		343

Significant differences by Duncan's multiple range test:

Cells: Vocation E-G < Vocation F-P $p < .05$
General F-P $p < .05$
Academic E-G $p < .05$

The analysis of variance for this classification, just as for the curriculum - IQ groupings, used a least squares procedure. A preliminary analysis tested the interaction, found it non-significant and dropped it. Its degrees of freedom were added to those associated with the error estimate. The F-ratios associated with the curriculum and grade rating both failed to reach significance. However, there were some interesting differences among the cell means. Vocational students who received excellent and good grades have the lowest mean discrepancy score. It is significantly lower than three other cells: vocational and general students with low grades, and academic students with high grades.

These differences appear to have a logical explanation but that will be deferred to the Discussion Section. These data do not completely support the predictions. All of the comparisons examined show lower discrepancy scores for vocational graduates, but only in certain cases were these differences significant. IQ differences, on the other hand, are clearly related to differences in discrepancy scores. The relationship, as predicted, is inverse: higher IQ's are associated with lower discrepancy scores, i.e., greater implementation.

To see if subjects with high ability engage in more vocational exploratory behavior (more job changes), mean IQ's were calculated for the subjects grouped by the number of jobs they have held. Table 11.15 presents these means and standard deviations.

TABLE 11.15

Mean IQ by Number of Jobs Subjects Have Held
Number of Jobs Held

1 Job		2 Jobs		3 Jobs		4 Jobs	
Mean	SD	Mean	SD	Mean	SD	Mean	SD
101.94	9.15	100.46	12.45	99.81	11.32	100.00	9.74
N 176		94		49		20	

None of the differences in Table 11.15 approaches significance. High ability is not associated with holding more jobs.

SECTION III: DISCUSSION

There are essentially three major areas of vocational development about which this study was able to gather some data: the types of occupations individuals enter, their success in these occupations, and their satisfaction with their jobs. Each of these areas will be discussed in turn.

Types of occupations entered were not defined by the usual Dictionary of Occupational Titles, but by the subjects' ratings of jobs they had actually held. The differences between these ratings and the subjects' ratings of ideal jobs were taken as a measure of self-concept implementation.

Probably the results most interesting from a guidance viewpoint concerned the relationship of curriculum choice and individual ability as variables in vocational development. Because of the selectivity of the academic curriculum, these variables were examined simultaneously. When IQ and curriculum were examined, self-concept implementation was found to differ significantly among IQ groups but not among curriculum groups. The high and average IQ groups showed more implementation than the low IQ group. The differences among the curriculum groups were not significant, but the high IQ vocational graduates did show the most implementation.

When high school grade ratings were used as the measure of ability, the curriculum - ability differences were pointed up more sharply. The vocational graduates who had received good grades showed the most implementation while the academic graduates who received good grades showed the least. In other words, good high school grades were to a slight degree a predictor of implementation for vocational graduates and of non-implementation for academic graduates.

It seems likely that vocational graduates who received good grades had fairly well-crystallized vocational goals. They were motivated, worked enough to receive good grades, and were able to find jobs congruent with their perceptions of an ideal job. Almost all of the academic graduates who received good and excellent grades planned to go on to college. The fact that they did not has probably forced some changes in their vocational self-concepts to which they were still adjusting. The general curriculum is traditionally the choice of students who have no clear post-high school plans. This apparent lack of vocational maturity may have made it difficult for them to implement a career plan.

The data thus show that ability and curriculum choice were related to self-concept implementation, but not in a simple manner. Ability was related in a fairly direct manner. Workers with high or average ability tended to show more implementation. Curriculum seems to be related but moderated by ability and the similarity between the curriculum taken and post-high school experiences. For vocational students with high ability, implementation was relatively high. For academic students with high ability who planned to go on to college, implementation was somewhat lower.

The greater implementation for high IQ subjects seems to have been achieved in some manner other than by job mobility. There was no evidence that holding several jobs was associated with higher IQ's. If, as the theory states, exploration is necessary for self-concept implementation, it may be taking other forms such as reading about possible jobs, making a more thorough job search before accepting a job, taking trial jobs for short periods, and so on. These are all types of behavior one would expect the more able person to engage in to a greater extent.

The relationships found between curriculum choice, ability and self-concept implementation do seem sensible. The same cannot be said for the relationship of year of graduation to implementation. Because of the high job mobility of young males, and the theoretical prediction that voluntary changes are made to jobs offering more implementation, it was expected that workers who had more experience in the labor market would show more implementation. This was not found. All the subjects tended to rate their present jobs within a narrow range of discrepancy from their ratings of ideal jobs. It did not matter whether they were in their first to fifth jobs or had been out of school one to five years, the mean implementation scores were very similar. It seems that there must be some underlying variables, whether these be self-concept implementation, justification of one's present job, or something else, that cause subjects to describe their present job within such a narrow mean range.

Self-concept theory would explain the similarity by the thesis that a worker moves towards jobs offering an acceptable degree of self-concept implementation. If the degree of implementation is less than acceptable, the worker leaves that job and moves to another. On the average, the degree of acceptable discrepancy is fairly constant. The subjects studied had all been in their present jobs at least three months. They had stabliized in these jobs because they experienced an adequate degree of self-concept implementation.

In general, this explanation seems to be adequate. However, all previous jobs on which data were gathered also had been held for at least three months, and the average level of discrepancy in them was much higher than in the most recent job. It is true that the ratings of previous jobs were obtained by recall and this may account for their higher discrepancy scores. Recall ratings are more questionable because they are more prone to errors of selective retention and rationalization. The most plausible explanation of the apparent movement towards jobs offering greater implementation is that it was achieved through distortions of memory that caused previous jobs to be recalled as more discrepant than present jobs. The most plausible explanation of the similarity of present job ratings is that it was caused by a tendency to justify one's present job -- a need to feel the job one is presently holding is really the type of job one wants. But even if this tendency were present, the analysis by curriculum and ability did show some significant differences.

The second general area of vocational development covered in this study was success in one's job. This is without doubt the most difficult area of vocational prediction. There is reason to believe that accurate prediction is not possible using present measures and techniques. Of the two best longitudinal studies available, Strong's[9] 18-year follow-up has no data on the question of occupational success. And Thorndike and Hagen[10] report very little relationship between aptitude measures and such criteria as income and vertical occupational mobility after an average 12.5-year interval. These negative results are probably due to the fact that the factors involved in occupational success, such as individual temperament, cannot be accurately measured with present tests.

The difficulty of predicting success, may explain the general neglect of the question of competence in discussions of vocational development. The implicit assumption seems to be that once a worker has found a congenial occupation he will perform well in it. There is little evidence to support this premise. Studies of job satisfaction have not unequivocally demonstrated that a more satisfied worker is necessarily a better worker.

This study produced some data which can be used to examine the question. Although the results are not conclusive they do suggest workers with greater implementation are seen by their supervisors as better workers. Five out of six of the product-moment correlations between supervisor ratings and discrepancy scores for subjects in their current jobs were significant and in the predicted direction. Overall preparation was the only area that did not yield a significant correlation, and this was the rating with the least direct relationship with job performance. Because of the considerable intercorrelation of the separate ratings, none of the partial correlations were significant. Nor did combining the separate ratings in a multiple R increase the amount of explained variance. These non-significant findings, of course, reflect the high degree of common variance or halo effect in the separate ratings.

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[9] Strong, E. K. Vocational Interests 18 Years after College. Minneapolis: University of Minnesota Press, 1955.

[10] Thorndike, R. L., & Hagen, Elizabeth. Ten Thousand Careers. New York: Wiley, 1959.

The attempt to overcome the halo effect through the use of extreme groups was only moderately successful. The groups used, the highest and lowest quarters on the implementation measure,were significantly different on only two of the six ratings. Once again the two on which they differed were the two most closely concerned with job performance: work qualities and habits and overall performance. Of the six areas these were the two that would be expected to be most likely to differ.

Yet when one considers the composition of the groups that were compared, it is surprising there were not more differences. The Job Rating Scale discrepancy scores in the lower quarter ranged from one to 35; in the upper quarter they were from 75 to 169. There was thus a difference of 40 points, or one and one-third standard deviations, between the closest scores. The failure to find more significant differences no doubt reflects the lack of sensitivity of the supervisor ratings whose standard deviations, even for these extreme groups, overlap from 58 per cent to 83 per cent. Given this lack of sensitivity the conclusion on occupational success must be regarded as tentative: subjects with greater self-concept implementation in their jobs tended to be rated higher on their work performance by their direct supervisors.

The data with regard to job satisfaction, the third area of vocational development examined, are more definite. As Super predicted -- the degree of satisfaction attained was proportionate to the degree to which the self-concept had been implemented. The correlations between the measure of implementation and the two measures of job satisfaction were both significant and interesting.

However, some of the correlations were so high the question might be asked, was the Job Rating Scale merely measuring job satisfaction a different way? The data do not provide an adequate answer to this question. On a superficial level there is little similarity between the implementation measure, Job Rating Scale, and the two satisfaction measures, the Job Descriptive Index, and the subjects' satisfaction ratings, but it is true that all three required subject ratings of some sort. The data on convergent and discriminant validity show that the two different satisfaction measures correlate higher on the same areas than they correlate on different areas. This finding indicates that something beyond response set or method variance was being correlated. The question, however, remains is the Job Rating Scale measuring anything beyond satisfaction?

While there are few data that can be brought to bear on the question, it does seem that something beyond satisfaction was being tapped. In the frame of reference of this study a work value is considered a persistent tendency or judgment on the part of the worker as to what he wants from a job. These tendencies are not situationally defined as job satisfaction is usually measured. Work value judgments persist across jobs. The degree to which a particular job contains what the worker wants should, to a large degree, determine his level of satisfaction.

If such a model is correct, and there is some evidence from the present data that it is, it should be possible to predict, within limits, job satisfaction. The Strong Vocational Interest Blank and other interest inventories are rather successful at predicting occupational stabilization. They predict, with moderate accuracy, the occupational areas in which professional and managerial people spend most of their working lives. Interest inventories have not proved useful in predicting occupational satisfaction. It would seem possible by matching work value profiles to criterion groups to predict the occupational areas in which a young person facing an occupational choice would be most likely to find his values reflected. And, if the relationships in the present data hold, the greater degree of similarity the more likely it is that job satisfaction will be high.

SECTION IV: SUMMARY AND CONCLUSIONS

The study reported in this chapter was based on a randomly selected one-quarter subsample of the males interviewed for the larger study. The study attempted to verify some predictions derived from self-concept theory of vocational development. Essentially it attempted to determine if workers actually do seek jobs whose requirements are congruent with their own self attributes. This congruence was labeled "self-concept implementation" and was measured by a specially constructed rating scale the subjects used to describe their concepts of ideal jobs and each of the actual jobs they had held. The sum of the differences between these ideal and actual ratings was the implementation score for each job. These scores were analyzed by high school curriculum and individual ability, number of years the subject had been in the labor market, supervisor ratings, and job satisfaction.

The following conclusions were drawn from the results:

1. Choice of a curriculum indicating a commitment to a post-high school vocational plan was related to self-concept implementation but was moderated by the ability of the subject and the continuity between the curriculum taken and eventual post-high school experiences. Graduates of the vocational curriculum who received good grades while in school showed the most implementation. Graduates of the academic curriculum who received good grades while in school, and who had planned to go on to college, showed the least implementation.

2. Subjects with average or above average IQ showed more implementation than subjects with below average IQ.

3. IQ was not associated with the number of jobs held.

4. Cross-section measures of subjects who had been out of school from one to five years were not a sensitive indicator of self-concept implementation. The tendency of subjects to rate their present job within a narrow mean range of discrepancy from their ratings of ideal jobs obscured the relationship of these ratings to the time variable.

5. Subjects' recall ratings of previously held jobs showed less self-concept implementation than their ratings of their present jobs.

6. There were slight but significant tendencies for subjects who indicated more self-concept implementation to be rated higher by their direct supervisors.

7. Subjects who indicated more self-concept implementation in their jobs were more satisfied with their jobs.

PART IV - SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

CHAPTER 12

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

SECTION I: INTRODUCTION

The Issues

In the coming years America will have entering its labor force a larger number of young people than at any time in its past. These young people will be entering a labor market where the need for the unskilled and untrained is at its lowest point. At the same time technology is becoming increasingly complex and the need for skilled manpower has never been higher.

These trends have been evident, of course, to educators, government officials, economists, and others interested in the efficient allocation of human resources. One result of this awareness was the Vocational Education Act of 1963. Through it, the nation pledged itself to make a substantially greater effort to train its young people.

Despite this commitment at the highest levels, vocational education has been the subject of continuous, heated, and, at times, even bitter debate. This debate usually centers on issues such as the usefulness, or adequacy, of vocational education. Do graduates really use the training they receive in school? How effective is this training? Does it really prepare for the types of jobs young people obtain upon graduation? Should training be conducted in a comprehensive or separate vocational high school? Another issue often raised concerns the image of vocational education which is seen by some observers as only appropriate for those students who cannot succeed in the more "demanding" academic curriculum. The phrase "dumping ground" is often heard when this point is discussed. A third issue, probably the most sensitive of all, is the role of vocational education with regard to minority groups and others from disadvantaged backgrounds.

The Method

This study gathered data on all these points so that this very necessary dialogue on vocational education could be conducted with reference to the appropriate facts.

The study was conducted by selecting nine communities which met criteria of size, labor force composition, type and quality of vocational programs, and geographic accessibility. Profiles of the economic and demographic characteristics of the cities were prepared.

When the cooperation of the school officials of the selected cities was obtained, those parties most vitally concerned with vocational education were contacted and their attitudes and experiences were examined. These parties were the schools, employers (including direct supervisors), and unions, and, of course, the graduates themselves.

The schools were examined through an on-site evaluation of their vocational programs. This evaluation was conducted in the nine selected cities by a group of educators each of whom was an authority on the vocational program he assessed. Included on this team were guidance experts and representatives from labor and management. During the school visitation, classes were observed and interviews were conducted with administrators, teachers and students. Questionnaires were distributed to the teachers to measure their attitudes towards vocational and college preparatory education. In all, programs in 25 schools were visited and evaluated, and 1,600 questionnaires were completed by teachers.

Employers and union officials were personally interviewed. The employers were questioned about the jobs for which they hired young people, and how well their current applicants were trained for these jobs. They were also asked about their contacts with and ideas about vocational education. After the interviews, they were given an attitude questionnaire and asked to complete it and return it by mail. Of the 658 employers interviewed, slightly over half (52 per cent) returned the questionnaire.

Many of the questions directed to the 90 union officials were identical to those asked of the employers. These were the questions on contact with and ideas about vocational education. The questions that were asked only of union people concerned their sources of new members, their attitudes towards young people as union members, and the role of their union in the training of young people.

The direct supervisors of the graduate respondents were asked to complete a rating scale on the preparation and job performance of these graduates. Usable ratings were received from 2,826 supervisors. These represented 55 per cent of the graduates interviewed.

A total of 5,181 usable graduate interviews were obtained. The total was composed of almost equal numbers of vocational (2,111) and general curriculum (2,023) graduates with the remainder (1,047) being academic (college preparatory) graduates. All of these respondents had entered the labor force upon graduation. Graduates who entered college directly from high school were eliminated from consideration before the interview sample was drawn.

The graduates were questioned at some length about each job they had held since leaving high school. These questions included: type of job, how obtained, and length of time held; type of company; pay, both starting and leaving (or current); ratings of school preparation and job satisfaction; and their reasons for leaving each job they had left. They also completed a standardized measure of job satisfaction, and were asked about their school experiences and family background.

As a check on the data obtained from these interviews, another 3,342 respondents completed and returned mail questionnaires. The results from these questionnaires were compared to those obtained from the personal interviews. The actual significant differences as a proportion of the total possible responses were only slightly higher than would be expected by chance.

All of these data were analyzed with reference to the issues in vocational education mentioned above. Each of the chapters of the main report focuses on one or more of these issues. This summary, however, does not discuss these chapters separately. The last section of each chapter contains a summary and conclusion. Instead an attempt will be made to interrelate the major issues with the various sources of data bearing on each issue.

The first major issue discussed is the question of adequacy. Data from all the sources bore on this point. The second major issue is the image of vocational education. The interviews with employers and union officials, the attitude questionnaires, and the impressions of the labor and management representatives on the visiting team provided the material for this area. The third major issue presented is concerned with vocational education and groups with special problems. The interviews of the graduates, about 20 per cent of whom were nonwhite, were the primary source for this data. One group with special problems some might be surprised to find included in this section -- females. The results indicate females are in many ways being ignored by vocational education.

SECTION II: THE ADEQUACY OF VOCATIONAL EDUCATION

Adequacy as Evaluated by the Visiting Team

An examination of the economic and demographic profiles prepared for each community revealed little relationship between the proportions of enrollment in the various vocational programs and the occupational distributions in the communities. The proportions of graduates placed in related occupations as reported by the schools were relatively high. But even if these are accepted, the small enrollments negate any significant impact on manpower needs. The relationships between training and employment found by the follow-up interviews were, for many of the vocational programs, much lower than those reported by the schools. Apparently, the schools were using a more liberal definition of related employment than that used in this study.

The low enrollments existed despite the generally high quality of the programs being offered. The visiting teams consistently rated quality of instruction, physical facilities, equipment, etc., as adequate or better for all programs. The weaknesses that were noted usually referred to such things as the limited number of offerings, the lack or inadequate use of advisory committees, and poor guidance, placement, and follow-up.

The school officials in charge of the vocational programs had limited opportunity to expand their offerings or provide auxiliary services. Most of the vocational directors did not have easy access to their superintendents and hence were not able to assure that adequate attention and resources were directed to vocational offerings.

In the small communities better communications existed and resulted in an understanding of the goals of vocational education across all levels of administration. Consequently, these communities were judged to have the best overall vocational curriculum both in quality and in the proportion of students enrolled.

The medium-sized communities had sympathetic administrations which provided good facilities and adequate materials. Despite this support, the programs offered were frequently narrowly conceived and students were not attracted in sufficient numbers to fill all available work stations.

The strength of the vocational offerings in the large cities lay in their greater breadth and in their potential to meet the needs of all students. In these cities, however, the goals of vocational education were found to have had the least influence on total educational policy, and, in proportion to enrollment, the vocational expenditures were lowest.

In general, the results of the program evaluations present a picture of sins of omission rather than sins of commission. What the schools were doing, they were doing adequately. Their weaknesses reflect those things they should have been doing but they were not. Most prominent among these omissions was the failure to develop programs for those students who could not profit from present offerings. The proportion of students enrolled in the vocational curriculum compared to the proportion of those who obtained jobs upon leaving school attests to the need for new approaches. Other significant weaknesses were the poor guidance programs and the insufficient use of advisory committees. Each of these areas is discussed further below.

Adequacy as Evaluated from Follow-up Interviews

If, as indicated by the program evaluations, the schools were training their vocational students adequately, this training should be reflected in the actual work experiences of these graduates. Comparisons were made on various measures of the job experiences of graduates of all three curricula -- vocational, academic, and general. Few advantages were found in these measures for any of the curricula.

There were some differences in the occupational distributions of the graduates from the three curricula. Graduates of the vocational curriculum obtained more manufacturing jobs while graduates of the academic and general curricula obtained more white collar, primarily clerical, jobs. Despite these differences, graduates from all three curricula tended to earn about the same amount of money, to remain on jobs for about the same length of time, to leave jobs for much the same reasons, and to have about the same levels of job satisfaction. The differences that were associated with curricula referred to evaluations of training. The vocational graduates clearly thought that they had been better prepared for their jobs than did the academic or general graduates. These attitudes of the respondents, however, were not confirmed by their direct supervisors who rated the preparation of students provided by all three curricula about the same.

Another major difference in occupational experiences among the curricula was the method used to obtain a first job. The primary method used by all graduates was by direct application or other personal methods, revealing the tendency to find jobs in a rather disorganized fashion. Although vocational graduates, both male and female, were much more likely than graduates of the other curricula to have been placed by their school, the extent of school participation was generally quite low.

From these findings a clear case cannot be made that vocational education has a direct payoff in the occupational experiences of its graduates. These graduates do believe they are better prepared, and their schools do find jobs for a greater proportion of them, as compared with the other curricula. Besides these measures, there are few objective indices that show a definite advantage to the vocational graduates.

Despite the lack of clear differences, it cannot be concluded that one curriculum provides as good a preparation for employment as another. There were many differences in the characteristics of students in the three curricula. Attempts were made to control for the more obvious of these, but it was impossible to control for all of them. For many characteristics, such as personality, interest, and motivation, no measures were available, and these variables may have had just as much influence as IQ or curriculum on the vocational experiences of graduates. It could reasonably be argued that the personal qualities that enable a boy to complete the typical general curriculum will also enable him to do well in the labor market. It might also be contended that without the appeal that the vocational curriculum has to many students, these young people might never have completed high school. Although these are legitimate questions for further research, it might be suggested that the physical environment of vocational education -- the large shops, some degree of individualized instruction, the attempt to relate academic to vocational subjects, etc. -- might be the "holding" factor for many students.

The Adequacy of Guidance in Vocational Education

When considered in light of need, it is the vocational and not the academic or general curriculum graduate who needs guidance the most. The decision to follow the vocational track is a more limiting one, in terms of post-high school options, than the choice of either of the other curricula. This is not to say that a decision made in the ninth or tenth grade must be followed throughout the individual's career. Quite the reverse is usually true. For example, in this study the percentage of trade and industrial graduates who obtained jobs that were directly related to their training was less than one-third. This figure is confirmed by other studies.

When choices that do not follow from previous decisions are made, the individual must accept the costs involved. In the case of the vocational graduate, one of the inevitable costs of such a change is the loss of the investment, both personal and social, made in obtaining skills that are not used.

The uninitiated observer, upon considering these facts, would expect the major counseling effort in the schools to be directed towards helping the vocationally-oriented student to choose among the possible occupational clusters that interest him. Anyone familiar with the operation of American high schools knows that the prevailing situation is just the opposite.

Data from this study revealed that the vocational students were the least likely to have discussed either their course choices or their occupational plans with a guidance counselor. Among the vocational graduates about one-half recalled discussing their course choices, and about one-fifth recalled discussing their job plans. Among the academic graduates about three-fourths reported discussing their course choices and about one-third reported discussing job plans. Neither of these sets of figures is reassuring, but the direction of the difference should cause the most concern.

The conclusions reached from the analysis of the follow-up interviews were fully confirmed by the evaluation of the guidance programs in the schools. The primary reason for the inadequate counseling was the high, unrealistic student-counselor ratio. On the average in the senior high schools this ran about 440 students to one counselor. At best, this ratio would make it extremely difficult to see each student, if for only one hour during the total school year. The handicap of this ratio is coupled with the fact that typically counselors spend most of their time with college-bound students. When these two facts are considered, it is easy to understand why the follow-up interviews, all of which were with graduates who did not go on to college, revealed few contacts with counselors.

Many other specific weaknesses of guidance programs were noted in the evaluation. These referred to such things as inadequate physical facilities, lack of counselor-employer contact, incomplete pupil records, etc. By any criterion, guidance, as currently carried on, was one of the major weaknesses found in this study of vocational education.

The Proper Setting for Vocational Education: The Comprehensive or Separate Vocational High School

Another issue often raised in connection with the adequacy of vocational education is whether it should be conducted in a comprehensive or in a separate vocational high school. Those who argue for the separate school claim such schools can offer better training. Their claims are made on the basis of greater student interest, broader offerings, modern equipment, coordinated courses, etc. The advocates of the comprehensive school will concede some of these advantages for the separate vocational school, but counter with the democratic virtues of the comprehensive high school. In these schools, it is claimed, students from all segments of society study together and acquire increased familiarity and understanding of one another. What these advocates tend to ignore is that "form" is not a substitute for "substance." The advantages of a comprehensive school accrue from activities and programs in such a school which lead to an integration of the academic and vocational students.

The interviews of graduates from the two types of schools did not support the claims of either of the advocates. There was no evidence that graduates of separate vocational schools were better prepared or more successful in their first jobs. Neither was there any evidence that comprehensive schools were leading to greater acceptance among students from different curricula. On the contrary, male vocational graduates from comprehensive schools were much more likely than graduates of separate schools to report they felt "looked down on" because of the courses they took. Other questions on friendship groups and participation in school activities yielded similar patterns of responses.

The case, therefore, was not made for either school. In a negative sense, though, the evidence was more favorable to the separate school. While it did not appear that graduates of the separate schools were better trained, neither did these graduates perceive attitudes of condescension in their school. If a decision as to type of school were to be based on probable attitudes of its students, the evidence would favor the separate vocational school.

SECTION III: THE IMAGE OF VOCATIONAL EDUCATION

In any discussion of vocational education the phrase "image problem" is almost sure to be heard. The implications of this phrase are that while vocational education is commonly seen as a second-class education, it is in reality as successful as any other type. The follow-up interviews indicated that vocational graduates performed just as well in their jobs, and, in fact, considered themselves better prepared for them. Still vocational education is considered by many as in some way "inferior" and the term "dumping ground" is often applied to it.

The Image in the Schools

Negative attitudes toward vocational education were even detected among teachers. The 1,600 attitude questionnaires returned by the teachers were analyzed both by subjects taught and by the type of school in which the teachers worked. Type of school was found to be more closely associated with attitudes towards vocational education. Teachers from exclusively vocational high schools were the most favorable. Teachers of academic subjects in these schools were as favorable as vocational teachers from comprehensive high schools.

It was the academic teachers from comprehensive high schools who ranked lowest in support of vocational education. Tallies of their responses to the separate scale items revealed that they agreed with the idea of vocational education, but were skeptical of the effectiveness of its actual operation. It was these teachers who tended to reject any suggestion to expand vocational education. They believed more "basic" education was necessary. They also thought vocational students had inferior ability. This last attitude apparently was communicated to their students for it was vocational students from comprehensive schools who were most likely to feel "looked-down on."

The Image in the Community

The labor and management representatives, on the school evaluation team, detected similar attitudes in their conversations with employers, labor officials, and other community representatives. Many employers, especially large ones, were pessimistic about vocational education. These employers thought they could give better training themselves. Union officials in the skilled trades were reluctant to give credit for training received in the school programs.

These findings of the labor and management representatives were, of necessity, impressionistic, because they spoke with only a few people in each community. The large scale interviewing of samples of employers and union officials largely confirmed these impressions. Few employers expressed a strong preference for vocationally trained graduates. Personal characteristics, such as initiative and conscientiousness, were the traits most desired in prospective employees. Most employers were, however, satisfied with the preparation their young employees were receiving. Few union officials knew what curriculum their young members had taken in high schools. They reported that their major source of new members was from sons or relatives of current members.

When employers said they could train their employees, they were usually referring to on-the-job training. Most of this training is specific to the particular job and has little transfer value. In general, neither employers nor unions had really thought about the problem of where young people acquire the training necessary to take a productive place in society. When asked about current and projected future skill needs, the majority of both groups either could not answer or replied in vague generalities. They were concerned with the need for training only as it affected their day-to-day operations. One of the major reasons for this lack of interest may have been their limited contact with vocational education. This is discussed further under the topic of advisory committees.

The Image and Advisory Committees

The weaknesses cited most frequently in the evaluations of all the vocational programs were their inadequate use of advisory committees. Many programs were being conducted without any advisory committees; other programs had committees in name only or had so few meetings that the committees could not function effectively. Where they were in existence, large employers and union officials were either absent or poorly represented. The evaluation team, both the program experts and the labor and management representatives, concluded that the schools were not utilizing the full resources of the community.

The interviews of employers and union officials led to an identical conclusion. These interviews revealed that the respondents had had limited contact of any type with the vocational programs in their communities. A comparison of the degree of support of vocational education, as measured by the attitude questionnaire, and the type of contact with it, showed that employers who had had the more active types of contact were most favorable. Those employers who had only been visited by representatives of the schools were no more favorable than those employers who had no contact.

Advisory committees would appear to be a natural way of solving both problems -- the limited use of advisory committees and the limited contact of the community with the schools. The responsibility is, of course, with school officials to stimulate increased participation. The key seems to be the degree of activity. A few meetings of an advisory committee each year is not sufficient. Continuous cooperation in such efforts as work-study and apprenticeship programs, career days, adult education and retraining, the planning of new programs to meet community needs, etc., offers more promise.

There is reason to believe that any technique that increases community participation in some phase of vocational education will be associated with more positive attitudes. This is the reverse of the usual approach of attempting through educational programs to change attitudes which, it is hoped, will lead to changes in behavior. Bringing about a change in behavior is, of course, more difficult than just disseminating information. One way to bring about behavioral changes may be for school officials to approach employers, union officials, and others with specific requests for participation in specific projects. The probable payoffs of such attempts to all phases of vocational education warrant their increased use.

SECTION IV: VOCATIONAL EDUCATION AND GROUPS WITH SPECIAL PROBLEMS

Vocational Education and Minorities

The role of vocational training in the education of the urban disadvantaged, primarily Negro, groups has been the topic of considerable discussion. To some observers, vocational training appears to be the quickest, most direct way to convert an alienated or unskilled youth into a productive member of society. Critics of this approach claim that it is the old "hewers of wood" argument in a new form -- the justification of the inferior position of Negroes in terms of their alleged "natural inferiority." Vocational educators, for their part, point out that traditionally vocational education is not designed for the individual of limited abilities. The skills usually taught require average or better ability. They further state that many of the problems that have plagued vocational education have resulted from the "dumping" of poorer students into its programs. In addition, some vocational administrators believe it is necessary to advise qualified Negroes not to take vocational training because of what the administrators see as barriers to their employment.

In light of this debate, what is the evidence concerning the experiences of Negroes who completed the vocational curriculum? It must be kept in mind that these findings are based on interviews with Negro graduates. Because they are graduates, they may not be typical of severly disadvantaged, alienated Negroes. The socio-economic background of these Negro graduates did differ from that of whites in predictable ways: family income was lower, fathers were more often absent or employed in service or non-specific skill jobs, and more mothers were employed full-time. In addition, the measured IQs of these graduates were definitely skewed towards the lower scores in comparison to the IQs of the white respondents. Thus, in many ways, these graduates reflect the characteristics of the severly disadvantaged, but there are probably differences in degree.

Given the differences between the white and Negro respondents and the employment problems Negroes face, one would expect quite different school and labor market experiences and quite different attitudes concerning these experiences. There were differences, but they were not as sizable or as frequent as might be expected, especially for the vocationally trained graduates.

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Negroes from each of the three curricula tended to react to their school experiences in much the same way as whites from the same curricula. Both Negro and white vocational graduates thought they were better prepared for employment than academic and general curricula graduates. With regard to feelings of acceptance by classmates and school officials, Negroes were just as positive as whites. This last finding is qualified by the fact that most of the Negroes attended segregated schools. They evaluated their acceptance with reference to classmates of the same color.

Two questions on school experiences did reveal some differences. Male Negro graduates of the general curriculum were over twice as likely as any other group to report that they chose that curriculum on the advice of school officials. There was some evidence from the school evaluations that some Negro males who expressed a preference for training in one of the skilled trades were persuaded not to take that training. The school officials explained that this advice was given because it was impossible to place Negroes in trades requiring apprenticeships. This may well explain the disproportionate number of Negro males who took the general curriculum at the suggestion of school officials. The other question on school experience will be discussed after the work experience data are presented.

The most obvious difference in the employment experiences of the Negro and white respondents was in the distribution of the types of jobs they obtained. Negro males and females were both more heavily represented in the manufacturing and service sectors than were whites. Negroes also received less pay than whites for all comparable sex-curriculum classes. Negro males from a vocational curriculum, however, received the best pay relative to the difference in the other Negro-white comparisons.

Despite these differences in occupational distribution and wage levels, there were few differences associated with color in individual perception of job satisfaction. The exceptions were male Negroes from the academic curriculum. These respondents were less satisfied than their white counterparts with their work, pay, and promotion opportunities.

The Negro male who graduated from a vocational curriculum showed up as relatively "better off" than the Negro graduates of the other curricula. The indices of his work experience were not as favorable as the white graduates, but it seemed that the vocational curriculum had the greatest yield for the Negro -- at least for the Negro male. When the respondents, however, were asked if they would recommend their curriculum to a young person, there were no differences consistently associated with sex or race. This was about the only evaluation of school experience where the vocational curriculum did not yield an advantage for Negro males.

These findings, of course, do not answer all the charges with regard to vocational education and minorities. They do, however, suggest that Negroes can benefit from the vocational curriculum and, given present conditions in society, probably benefit more than from the other curricula. If these conditions -- employer and union discrimination, guidance, and family environment -- were to change, the relative outcomes of the various curricula might not be significantly different.

Vocational Education and Girls

Some observers could argue, after reviewing the results of the study of vocational education and females, that there is little justification for including these data under the section "Groups with Special Problems." They could point to the high percentage of girls from the vocational and general curricula who obtain jobs that are directly related to their training. They could cite the measures of job satisfaction and the ratings of the female graduates and their direct supervisors as to the adequacy of the graduates' school preparation. On all of these measures the female graduates were rated as high as the males, and there were no differences of any real significance among the curricula.

On most of the questions regarding school experiences the results for the female graduates are more favorable than the results for the males. Among the vocational graduates, females were less likely than males to report feelings of condescension and exclusion from school activities. Girls from each of the curricula were more likely than males from the same curricula to have received guidance in their course choices and job plans.

The only question on which females responded in a way that might be considered less favorable than the way males responded concerned reasons for their course choices. Girls were twice as likely as males to say they chose courses to prepare for a job, and they were less likely to say they chose courses on the basis of interest. These results were unexpected for it is males who are supposed to be concerned about jobs and careers. Females, it was revealed by other questions in the interview, regarded post-high school employment as an interlude before they assumed their real roles as wives and mothers.

These apparently contradictory results are explained by the limited number of vocational offerings available to females. Office occupations accounted for about half of all the students, male and female, enrolled in the vocational curriculum. It was the only vocational program open to girls which could accommodate any significant number. Girls who wanted to obtain vocational preparation had very few options open to them. They chose their high school courses, therefore, not out of interest, but to prepare for a job.

The girls did not react negatively to the limitations on the choices available to them. They have learned their cultural lessons well: there are few occupations appropriate for girls; girls should only plan on working until they get married; girls should not prepare themselves for important jobs because they will marry and waste their training. All of these cultural stereotypes restrict the schools in the programs they offer to girls, and, even more, they restrict the vocational self concepts of young girls so that they are satisfied with these limited offerings.

The result of these limitations is that many girls of high natural ability never prepare themselves for the occupations they are capable of filling. Their skills are lost to society throughout their vocational lives. And many women, contrary to the stereotype, do have extensive occupational experience. Girls, however, are not made aware of their probable vocational careers, and they are not trained to plan and to prepare for them. It would seem the schools should take the lead in expanding the vocational self concepts of young girls. Through expanded offerings and skillful guidance, young girls can be led to prepare themselves for the variety of occupations where their skills are needed.

The school, itself, cannot change the attitudes of the girls regarding their occupational goals. It must be recognized that the family environment and the social milieu in which the girls are raised contribute significantly to the development of their attitudes. The school, however, can play a role in changing these conditioning factors which can lead to a fuller utilization of the natural capabilities of women.

CHAPTER 13

RECOMMENDATIONS

Vocational Offerings and the Needs of Students and the Community

1. Secondary education should be reoriented to provide offerings of an occupational nature for those students who expect to obtain employment after graduation but who do not wish to commit themselves to one of the traditional vocational programs.

   This recommendation is based more on the potential of vocational education than on its actual present performance. At present, except for office occupations, low proportions of students are enrolled in vocational programs. These programs have little impact on the occupational needs of their communities. Yet the majority of students enter the labor market upon leaving high school. It is apparent that present programs have not been able to serve the needs of either the students or the communities.

   New programs should be devised that are comprised of occupational clusters and are taught by appropriately prepared teachers in work-oriented settings. These programs should provide opportunities for vocational exploration as well as for familiarizing students with the basic skills that are characteristic of the occupational clusters.

2. The special features of vocational education should be utilized to design programs for those students who cannot benefit from the current content of any of the three curricula.

   A substantial proportion of students in most high schools lack either the interest or the ability to profit from current offerings. These are often students from disadvantaged environments who lack verbal skills. The physical requirement of academic courses -- the necessity of sitting quietly for an hour at a time -- is incompatible with their life styles. They are prevented from taking traditional vocational programs by the ability requirement of these programs.

   The physical setting, freedom of movements, individualized instruction, and stress on physical rather than verbal skills that characterize vocational programs seem to have a potential to motivate these students. The programs that are designed for them, however, should have a goal of occupational familiarization rather than skill attainment. The differences should be essentially of breadth rather than depth and of guidance rather than mastery of subject and skill. Eventual movement from these programs into the more specific, traditional vocational programs should be encouraged.

3. Substantial efforts should be expanded to enroll Negroes of average and above-average ability in the traditional vocational programs and to pursue actively their subsequent placement in jobs utilizing the skills learned.

   Employers, on the one hand, report they are being pressured to increase their number of Negro employees at every skill and occupational level. They assert larger number of Negroes are not already employed because of the limited number of qualified applicants. On the other hand, some vocational directors claim it is difficult to place their Negro graduates. Because of these obstacles, many Negroes are reluctant to prepare for occupations where Negroes are not normally employed.

   Vocational educators should accept the challenge to break this cycle by preparing qualified applicants and by working with representatives of their communities to create the conditions necessary to assure their eventual employment.

4. A wider option of vocational preparation should be offered to female students.

   The high enrollment in office occupations and the high percentage of graduates who obtain related jobs present a reassuring picture of the success of this program. It is less reassuring when it is noted that female graduates of academic and general curricula have much the same occupational experiences as vocational graduates. A more basic criticism, however, is the limited choice that is offered vocationally-oriented girls. The school system tells them, in effect, that they can parpare to be clerks and secretaries or receive no vocational preparation. And girls have been so conditioned by society that they believe these are the only types of jobs appropriate for them. It is well established that the distribution of abilities in the female population is comparable to that in the male population. The restricted vocational self-concepts of young girls coupled with the limited number of programs offered by the schools result in an inefficient allocation of the skills of females.

5. The reorientation of vocational offerings should be conducted without the constraint of the traditional organization of vocational programs.

   The traditional areas of vocational education -- agriculture, trade and industrial, etc. -- result from their history and legislation. New approaches may require that programs be designed without being limited to these traditional areas. Planning in terms of these areas seems to have limited the ability of vocational educators to innovate and to have prevented them from trying different and creative programs.

6. Vocational educators should give consideration to the development of revised methods of instruction that will enable them to meet the needs of occupationally oriented youth more effectively.

   Many experiments have been, and are being, conducted for the purpose of developing new methods for teaching youth preparing to enter the labor force after graduation. Such new methods include: new grouping patterns which recognize individual differences among students; revision of curricula for the purpose of stressing student inquiry into basic concepts, principles, and processes; and flexible scheduling procedures. These developments, in general, have been ignored by vocational educators.

The Administration of Vocational Education

7. The director of vocational education for a school system should hold an administrative position directly below the superintendent of schools.

   In many school systems the aims and objectives of vocational education have not been accepted. Vocational education is regarded as a service which is offered those students who do not fit into the usual curricula. As a result vocational expenditures are held to a minimum. A director who holds a position where he has the opportunity to influence educational policy increases the probability that adequate attention and resources will be directed to vocational education.

8. The director of vocational education should have sufficient staff so that his concern over the day-to-day operations of this program is limited and he can have the opportunity to develop new programs in relation to the changing needs of the community.

   A frequent criticism of vocational education, often raised in the main report, is that it has not adapted to changing conditions. If it is to adapt, someone must be sensitive to changes and plan to meet them. This is the function of the director. He should be anticipating the needs of his students and his community and should be planning programs to meet these needs. To do so he must be freed from some of the other demands on his time.

9. One member of the staff of the vocational director should be responsible for community relations. The person holding the position should be a specialist, and he should be given sufficient time to perform the function properly.

   Often, if community relations are specifically recognized, they are carried on in a hit-or-miss fashion by someone whose primary job is quite different. More typically, they are assumed to be an inherent part of the job of each teacher and coordinator. The usual outcome of these approaches is that community relations are neglected and the results are conditions such as those found in this study.

   To many teachers, employers, parents, and students the image of vocational education is that of a second-class education. This erroneous impression can be partially counteracted by providing recognition for occupational success and achievement through the use of the techniques of public relations. Since these techniques require skill and experience in their application, school systems cannot expect anyone to handle them. The responsibility should be assigned to a person who has both the ability and the time required to carry out the function. The results would probably include greater industry participation, up-to-date vocational programs, higher rates of placement of graduates, and the placement of graduates in the areas of their training.

The Preparation of Vocational Teachers and Administrators

10. Schools of education should train potential teachers and administrators in terms of understanding the conditions under which students learn rather than in terms of "how to teach." This would require a radical reorganization of teacher education programs.

    It is quite evident that a poor image of vocational education exists among many teachers in comprehensive high schools, particularly those who teach academic subjects. These negative attitudes reflect, to a large degree, the inadequate understanding of the environments out of which many youth come. The teaching process has failed to adapt itself to the needs of the students who live in these different environments.

    Teacher preparation should give future teachers and administrators a sensitivity to the effects of differing cultural backgrounds on the life styles of people. Along with this sensitivity they should be prepared to adapt teaching styles to the needs of students from different backgrounds.

11. Educational administrators should become endowed with greater sensitivity and capability to understand and deal with the problems of providing various forms of education to prepare youth for employment.

    The preparation for the highest administrative levels in education must include knowledge and understanding of education for the world of work which will enable administrators to exercise appropriate and competent leadership. Graduate study designed for preparing school administrators must concern itself far more with proper philosophy, curriculum design and school structure for the large proportion of youth who do not continue their education immediately upon graduation. Although a new style of administrators can be eventually generated from re-structured advanced degree programs, immediate steps should be taken to reorient the thinking of present administrators through a series of national and regional seminars and workshops designed to acquaint them with not only the problems of providing vocational education in all of its aspects at all of its levels but also the new methods for meeting these problems.

The Use of Advisory Committees

12. All segments of society including business, industry, government, and organized labor should play a more active role in the structure and execution of vocational offerings.

The effective utilization of advisory committees is a difficult and time-consuming job. Although isolated examples to the contrary can be cited, in general committees either do not exist or function in an ineffective manner.

The active participation of advisory committees holds much promise for improving vocational education. Contact with the employers of vocational graduates stimulates vocational educators to keep their offerings geared to the needs of the community. In turn. employers are more favorably disposed towards vocational education and give it more support and cooperation.

If this promise is to be realized, the schools must assume the responsibility to stimulate active participation. They cannot expect the community to come to them. Nor can they simply ask for more cooperation. The schools must design the programs and make the effort necessary to have industry operationally involved in the educational process.

Vocational Guidance

13. To provide meaningful guidance to occupationally oriented youth, student counselors ratios should be made more realistic. Counselors who work with these students should be sensitive to their needs and should possess the skills necessary to serve them.

As a general rule, very little effective vocational counseling takes place in high school. In the junior high school the counselor's role is to slot students into tracks -- academic, vocational, or general. In the senior high school most of the counselor's time is spent with those seniors who plan to go on to college.

An evaluation of the effectiveness of vocational guidance was impossible because so little of it is being conducted. The need for vocational guidance and its apparent potential would seem to warrant increased effort. These efforts should be undertaken by counselors who are trained to work with non-college young people. Such counselors must be familiar with the psychological, sociological, and economic characteristics of these students, and must have sufficient knowledge of the occupational literature to guide vocational exploration.

14. Young women should be made aware, while still in high school, of the probable extent of their future vocational experience, and they should be trained to prepare for this.

Females in American society do not think in terms of long-range careers. At an increasing rate, women are remaining in, or reentering, the labor market except for brief periods during their childbearing years. Despite this trend, young women are not as yet anticipating vocational careers. Most of the females who were interviewed had no real career plans. They regarded their post-high school employment as a necessary interval before they progressed on to their real roles of wife and mother.

Young women should be given the opportunity under careful guidance, to examine the occupational role of women in society. They should be informed that many married women with children still spend 30 to 40 years in the labor force. The skills necessary for women to anticipate and plan for changes in their vocational status should be developed.

15. Vigorous efforts should be made to acquaint both Negroes and guidance counselors with the opportunities now open to Negroes in occupations where traditionally they have not been employed.

Prevailing attitudes as to the types of occupations "appropriate" for Negroes must be counteracted. These attitudes limit the aspirations of Negroes and they limit the kinds of guidance Negroes receive. Proper guidance coupled with training and placement should silence the frequent claim that there are no qualified Negroes to hire.

16. Vocational orientation should begin in grade school to acquaint youngsters with the tasks and values of all types of occupations.

Most young people of high school age have very limited occupational knowledge. Such information as they have is more often based on popular myths and stereotypes rather than on actual facts. In the absence of information, occupational decisions are either postponed until after high school or made because of identification with a particular social class. If a decision is made, it is typically tentative and it is often changed after the individual leaves school.

To counteract this condition, the presentation of occupational information should begin on a systematic basis in grade school and continue on through junior high school. In the lower grades this information should, of course, be broad and geared to the interest level of the students. In the later grades it should become increasingly specific. Care must be taken to assure the total occupational spectrum is presented with proper recognition of the value of all levels of work.

A probable side effect of such a program would be an improvement in the popular image of vocational education. The undue emphasis on the necessity of a college education may also be counteracted.

Placement

17. The high school should assume the responsibility to establish a post-high school plan for each departing student. For those students who desire employment, the school should provide active assistance until they are placed in jobs.

The evidence is ample, from this study and from many others, that the labor market operates in an inefficient manner. Informal sources are used far more frequently than the institutions organized to place workers. Young people frequently seem to take anything that comes along rather than seeking out jobs where they can find outlets for their interests and abilities.

School officials should attempt to coordinate all the community organizations involved in the placement of workers. There are some who think that this function could best be handled by guidance counselors. Their argument is that making counselors responsible for placement will produce an increased appreciation for the vocational problems of young people. Others contend that the placement task will hamper the efforts of counselors to assist young people in the process of vocational exploration. There is little evidence on either side, but it is known that if performance is measured by placement, efforts are put into placement.

Evaluation Through Follow-up of Graduates

18. Evaluation of the effectiveness of vocational education should be conducted in a more systematic manner. More comprehensive data should be gathered in follow-up surveys to provide feedback to modify current programs.

Vocational educators make a greater effort than any other group of educators to evaluate the effectiveness of their offerings through follow-up surveys. The major effort required in such surveys is in contacting the graduates. Unfortunately once this effort is made, often insufficient data are gathered. There is more to evaluation than determining the number of graduates who hold jobs that are related to their training.

Many of the questions raised in the main report could be answered if all educators would conduct comprehensive evaluations of the experiences of their graduates. To be effective, such evaluation should be conducted on a continuing basis. The relative payoffs of the different curricula and programs should be explored in relation to their costs. The results of such studies can provide the basis for effective educational planning.

The effectiveness of school training is most clearly seen in the first job held after graduation. In subsequent jobs it becomes more difficult to assess the relative influence of training and post-high school work experience. This consideration should not prevent schools from conducting more long-range evaluation at periods of five and ten years after graduation.

The Comprehensive or the Separate Vocational High School

19. On the issue of the comprehensive or the separate vocational high school no specific recommendation can be made.

The data from this study are not clear enough to support a firm recommendation for either the comprehensive or the separate vocational high school. The evidence that does exist, however, favors the separate school. It is suggested that the discussion be carried on with reference to real issues. A school is not more conducive to democratic values simply because all students are housed in the same building. Nor is a student better trained just because he has access to more modern equipment. What happens in that building and how well the student learns to use the equipment are the more crucial variables. Evaluation requires that the substance of the operation, and not just its form, be examined.

PART V - APPENDICES

APPENDIX A - VISITING TEAMS

Visiting Team

Name and Title	Area
Dr. Albert E. Jochen Former Assistant Commissioner for Vocational Education, N. J.	Administration
Dr. Charles C. Drawbaugh Assistant Professor of Education Rutgers-The State University	Agriculture
Marie F. Connauton Former Supervisor of Home Economics Ridgewood Public Schools, N. J.	Home Economics and Girls' Trade and Industrial Education
Janet Hays Lund Principal, Middlesex County Vocational and Technical High School Woodbridge, N. J.	Home Economics and Girls' Trade and Industrial Education
Dr. Carroll Nolan Professor of Business Education and Chairman, Department of Business Education Syracuse University	Distributive Education and Office Occupations
Dr. Robert M. Reese Professor of Education and Director Trade and Industrial Education Services The Ohio State University	Trade and Industrial Education and Technical Education
Dr. John L. O'Brian Associate Professor of Education Rutgers-The State University	Trade and Industrial Education and Technical Education
Simeon F. Moss Coordinator of Community Relations Board of Education Newark Public Schools, N. J.	Vocational Guidance

Name and Title	Area
Dr. John Searles Professor of Education The Pennsylvania State University	Academic and Related Subjects
Joseph E. Casey Manager, Professional Programs Leeds and Northrup Co. Philadelphia, Pa.	Management
John M. Powderly Assistant Director of Education United Steel Workers of America Pittsburgh, Pa.	Labor

APPENDIX B - SOCIO-ECONOMIC DATA OF COMMUNITIES

LIST OF EXHIBITS

APPENDIX B

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TABLE 1-B

Population Trends--Small Communities

(population 25,000 - 99,999)

Community	Adams	Baker	Clark
Total Population (1960)	69,400	59,500	30,300
SMSA Population (% change)[a]	-1.6	+21.5	+7.0
Urban Population (% change)[a]	-10.1	-3.6	+27.3
% White (1960)	98.8	63.5	99.3
% Increase Nonwhite[a]	14.2[b]	28.4	00.0
% 14 and under to Total Population (1960)	27.1	22.4	31.4
% 25 and over with High School Diploma (1960)	37.0	26.7	51.2

Source: U. S. Bureau of the Census 1960

[a] 1950 to 1960

[b] Had only slight impact on ratio of nonwhite to total.

TABLE 2-B

Employment Trends--Small Communities

(Urban Data)

Community	Adams	Baker	Clark
Urban Unemployment	Up	Up	Down
Urban Unemployment Rate (1960)[a]	5.9%	9.8%	4.8%
Urban Unemployment Rate (nonwhite) (1960)	b	13.0%	b
Employed Males (% change)[c]	-22.5	-15.0	19.0
Employed Females (% change)[c]	11.0	13.5	37.0
Job Concentration High	Yes	Yes	No
Work Force Composition			
Employed Males (1950)	73.4%	64.0%	68.1%
Employed Females (1950)	26.6%	36.0%	31.9%
Employed Males (1960)	65.8%	58.0%	65.0%
Employed Females (1960)	34.2%	42.0%	35.0%

Source: U. S. Bureau of the Census 1960

[a] U. S. Rate (1960) - 5.6%

[b] Included in total unemployment rate due to small number of nonwhites in community. (See Table 1-B)

[c] 1950 to 1960

TABLE 3-B

Secondary School Program--Small Communities

Community	Adams	Baker	Clark
Enrollment 1964-65 (Grades 10, 11, and 12)	3152	3299[a]	1724
Number of Years	3	4	3
Periods in Day	7	7	9
Length of Period (minutes)	50	50	42
Per cent College Attendance			
College Preparatory	70	85	95
General	--	4	4
Vocational-Technical	10-15	5	.5
Industrial Arts in High School	Yes	Yes	Yes
Number of Programs	5	1-3	1-4
Vocational Programs			
Vocational Agriculture	--	--	--
Distributive Education	Yes	--	Yes
Home Economics	Yes[b]	Yes[b]	Yes[b]
Office Occupations	Yes[b]	Yes[b]	Yes[b]
Technical Education	Yes	--	--
Trade and Industrial (Boys)	Yes	Yes	Yes
Trade and Industrial (Girls)	--	Yes	--
Evening Pre-employment	Yes	--	Yes
Evening Upgrading	Yes	Yes	Yes

Source: Data provided by Administration to visiting team, school year 1965

[a] Includes 906 students Grade 9

[b] Not all vocational

TABLE 4-B

Enrollment 1964-65--Small Communities

Grade	Boys	Girls	Total
9	450	456	906
10	1262	1218	2480
11	1254	1157	2411
12	1166	1212	2378
Total (9-12)	4132	4043	8175

Source: Data provided by Administration to visiting team, 1965.

Totals used to compute per cent enrolled in Trade and Industrial and Technical Education Programs

Community	Boys	Girls	Total
Adams and Baker (Grades 10-12) and Clark (Grades 11-12)	3373	3311	6684

TABLE 5-B

Population Trends--Medium-Sized Communities

(Population 100,000 to 499,999)

Community	Kimball	Lewis[a]	Miller
SMSA Population (% change)[b]	+12.4	+30.4	+15.9
Urban Population (% change)[b]	+1.4	-5.9	-10.8
SMSA Population (1960)	492,200	392,000	266,400
Urban Population (1960)	108,300	117,160	114,200
% White (1960)	99.1	90.8	87.1
% Increase Nonwhite[b]	61.5	58.1	67.0
% 14 and under to Total Population (1960)	27.7	30.4	27.1
% 25 and over with High School Diploma (1960)	35.8	40.0[c]	39.8

Source: U. S. Bureau of the Census 1960

[a] County data used instead of SMSA data

[b] 1950 to 1960

[c] Estimated

TABLE 6-B

Employment Trends--Medium-Sized Communities

(SMSA Percentage Data)

Community	Kimball	Lewis[a]	Miller
SMSA Unemployment	Down	Down	Down
Unemployment Rate (1960)[b]	4.1%	3.7%	3.8%
Unemployment Rate Nonwhite (1960)	--	7.6%	7.5%
Employed Males (% change)[c]	3.5%	21.5%	6.9%
Employed Females (% change)[c]	20.3%	31.7%	20.9%
Job Concentration High	Yes	Yes	No
Work Force Composition			
Employed Males (1950)	69.7%	71.3%	67.2%
Employed Females (1950)	30.3%	28.7%	32.8%
Employed Males (1960)	66.4%	69.7%	64.4%
Employed Females (1960)	33.6%	30.3%	35.6%

Source: U. S. Bureau of the Census 1960

[a] County data used instead of SMSA data

[b] U. S. Rate (1960) - 5.6%

[c] 1950 to 1960

TABLE 7-B

Secondary School Program--Medium-Sized Communities

Community	Kimball	Lewis	Miller
Number of Schools	2	4	1
Enrollment 1964-65 (Grades 10, 11, and 12)	3819	4062[a]	3017
Number of Years	3	3,4[b]	3
Periods in Day	7-8	7-8	7
Length of Period (minutes)	40-50	42-45	43
Per cent College Attendance			
College Preparatory	92	85	74
General	2.5-10	0-5	13
Vocational-Technical	2-6.1	.5-5	5
Industrial Arts in High School	No	Yes	Yes
Number of Programs	0	7	8
Vocational Programs			
Vocational Agriculture	--	1	--
Distributive Education	2	2	1
Home Economics	2[c]	3[c]	1[c]
Office Occupations	2[c]	3[c]	1[c]
Technical Education	1	1	--
Trade and Industrial (Boys)	2	1	1
Trade and Industrial (Girls)	--	1	1
Evening Pre-employment	Yes	--	Yes
Evening Upgrading	Yes	Yes	Yes

Source: Data provided by Administration to visiting team, 1965

[a] See Table 8-B for amplication and clarification

[b] Two schools actually enrolled students 8-12

[c] Not all vocational

TABLE 8-B

Enrollment 1964-65--Medium-Sized Communities

Community	Grades	Kimball	Lewis[a]	Lewis[b]	Miller	Schools in Study	Total
Boys	9	0	505	3261	0	505	3261
	10	682	658	3058	596	1936	4336
	11	663	559	2737	563	1785	3963
	12	664	547	2583	463	1674	3710
Total (9-12)		2009	2269	11,639	1622	5900	15,302
Girls	9	0	322	3068	0	322	3068
	10	605	552	2902	566	1723	4073
	11	587	462	2690	438	1487	3715
	12	618	457	2716	391	1466	3725
Total (9-12)		1810	1793	11,376	1395	4998	14,581
Total	9	0	827	6329	0	827	6329
	10	1287	1210	5960	1162	3659	8409
	11	1250	1021	5427	1001	3272	7678
	12	1282	1004	5299	854	3140	7435
Total (9-12)		3819	4062	23,015	3017	10,898	29,851

Source: Data provided by Administration to visiting team, 1965

[a] Enrollment in schools visited

[b] Total 9-12 enrollment, 1964-65; data provided by County Superintendent's office

Totals used to compute per cent enrolled in Trade and Industrial and Technical Education Programs

Community	Boys	Girls	Total
Kimball and Miller (Grades 10-12) and Lewis (Grades 9-12)	15,270	14,581	29,851

TABLE 9-B

Population Trends--Large Communities

(population 500,000 or over)

Community	Pierce	Quinn	Randall
Total Urban Population (1960)	939,000	876,000	2,002,000
SMSA Population (% change)[a]	29.1	22.5	18.3
Urban Population (% change)[a]	-1.2	-4.3	-3.4
% White (1960)	65.1	71.2	73.3
% Increase Nonwhite[a]	45.1	68.6	41.1
% 14 and under to Total Population (1960)	29.2	28.9	26.6
% 25 and over with High School Diploma (1960)	28.1	30.1	36.2

Source: U. S. Bureau of the Census - 1950 and 1960.

[a] 1950 to 1960

TABLE 10-B

Employment Trends--Large Communities

(Urban Data)

Community	Pierce	Quinn	Randall
Urban Unemployment	Up Slightly	Up	No Change
Unemployment Rate (1960)[a]	6.5%	7.5%	6.5%
Unemployment Rate (nonwhite) (1960)	9.7%	8.9% (down)	10.7% (down)
Employed Males (% change)[b]	12.9	-17.9	-9.9
Employed Females (% change)[b]	4.1	-3.6	5.9
Job Concentration High	No	No	No
Work Force Composition			
Employed Males (1950)	67.7%	68.7%	66.8%
Employed Females (1950)	32.3%	31.3%	33.2%
Employed Males (1960)	63.7%	65.2%	63.1%
Employed Females (1960)	36.3%	34.8%	36.9%

Source: U. S. Bureau of the Census - 1950 and 1960.

[a] U. S. Rate (1960) - 5.6%

[b] 1950 to 1960

TABLE 11-B

Secondary School Program--Large Communities

Community	Pierce	Quinn	Randall
Number of Schools	4	4	7
Enrollment (1964-65)[a]	8463	7303	11,397
Number of Years	3 or 4	3 or 4	3
Periods in Day	7 or 8	9	7 or 8
Length of Period (minutes)	41-45	40	45
Per cent College Attendance			
College Preparatory	20-38	50[b]	43-51[b]
General	1[b]	--	2-8[b]
Vocational-Technical	5-8	1-10	5-10
Industrial Arts in High School	Yes	Yes	Yes
Number of Programs	13	22	4
Vocational Programs			
Vocational Agriculture	--	2	1[c]
Distributive Education	2	1	5
Home Economics	3[c]	2[c]	3[c]
Office Occupations	4[c]	2[c]	6[c]
Technical Education	1	--	--
Trade and Industrial (Boys)	2	1	3
Trade and Industrial (Girls)	2	1	3
Evening Pre-employment	Yes	Yes	Yes
Evening Upgrading	Yes	Yes	Yes

Source: Data provided by Administration to visiting team, 1965.

[a] See Table 12-B for breakdown by grade

[b] See Text

[c] Not all vocational

TABLE 12-B

Enrollment 1964-65--Large Communities

Community		Pierce		Quinn		Randall		Total	
		Schools in Study	Total	Schools in Study	Total	Schools in Study	Total	Schools in Study	Total
Enrollment	Grades								
Boys	9	189	6591	502		29		720	[a]
	10	1752	6286	1179	4925	2723	11,174	5654	22,385
	11	1479	5390	1186	5019	2520	9281	5185	19,690
	12	1162	4315	1002	3905	1854	8990	4018	17,210
Total[a]	(10-12)	4393	15,991	3367	13,849	7380[b]	29,445	15,140[b]	59,285
Girls	9	129	6470	3367		11		577	[a]
	10	1243	6022	1117	4786	1441	9876	3801	20,684
	11	1396	5153	964	4634	1542	8723	3902	18,510
	12	1113	4335	916	3578	1277	9551	3306	17,464
Total[a]	(10-12)	3752	15,510	3097	12,998	4260[b]	28,150	11,009[b]	56,658
Total Enrollment									
	9	318	13,067	939		40		1297	[a]
	10	2995	12,308	2296	9711	4164	21,050	9455	43,069
	11	2875	10,543	2150	9653	4062	18,004	9087	38,200
	12	2275	8650	1918	7483	3131	18,541	7324	34,674
Total[a]	(10-12)	8145	31,501	6364	26,847	11,357[b]	57,595[b]	26,209[b]	115,943

Source: Data provided by Administration to visiting team, 1964-65.

[a] Grade 9 enrollments not included in totals, as 11 of 15 high schools were 3 year schools.

[b] Includes high school of agriculture and horticulture, only totals provided: 283 boys and 60 girls, total 343

TABLE 12-B

Enrollment 1964-65--Large Communities
(continued)

Totals used to compute enrollment percentages in Trade and Industrial and Technical Education

Totals used to compute enrollment percentages in Distributive Education

Community	Trade and Industrial		Community	Distributive Education	
Quinn	Boys	54,360	Pierce	Boys	22,600
(Grades 11 and 12)	Girls	51,872	(Grades 11 and 12)	Girls	22,617
	Total	106,232		Total	45,217
Pierce and Randall			Quinn and Randall		
(Grades 10-12)	Included in above figures		(Grade 12)		

APPENDIX C - CODING OF OCCUPATIONS

SPECIFIC D.O.T. JOB TITLES

401 Bakers

421 Furriers
423 Milliners
425 Dressmakers and seamstresses
426 Tailors and tailoresses

432 Cabinetmakers
435 Upholsterers

444 Compositors and typesetters
445 Electrotypers and stereotypers
446 Lithographers
447 Photoengravers
448 Pressmen and plate printers, printing

460 Shoemakers and shoe repairmen, not in factory
469 Occupations in stoneworking, n.e.c.

471 Jewelers, watchmakers, goldsmiths, and silversmiths
473 Engravers
475 Machinists
476 Toolmakers and die sinkers and setters

480 Tinsmiths, coppersmiths, and sheet metal workers
481 Molders
483 Boilermakers
484 Structural-and ornamental-metal workers
485 Welders and flame cutters
486 Blacksmiths, forgemen, and hammermen

497 Electricians

508 Opticians and lens grinders and polishers

516 Painters, except construction and maintenance

523 Construction machinery operators, n.e.c.
524 Brick and stone masons and tile setters
525 Carpenters
526 Cement and concrete finishers
527 Painters, construction and maintenance
528 Paperhangers
529 Plasterers

530	Plumbers, gas fitters, and steam fitters
533	Asbestos and insulation workers
541	Locomotive engineers
553	Linemen and servicemen, telegraph, telephone, and power
555	Motion Picture projectionists
558	Meatcutters, except in slaughtering and packing houses
573	Cranemen, derrickmen, hoistmen, and shovelmen
579	Mechanics and repairmen, railroad and carshop
580	Mechanics and repairmen, airplane
581	Mechanics and repairmen, motor vehicle
583	Mechanics and repairmen, n.e.c.
592-599	Foremen, all categories
605	Roofers and Slaters
613	Fireman, other than Process Fireman
623-629	Apprentice, all categories

APPENDIX D - RESEARCH INSTRUMENTS

LIST OF EXHIBITS

APPENDIX D

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Reproduced below is a sample of the letter sent to the graduates to request their cooperation and verify their address.

High School Letterhead

Dear Graduate:

How well do high schools prepare their students for life and work? Which courses do graduates think were helpful when they began looking for a job? What did graduates like most about high school?

These are some of the questions The Pennsylvania State University and Rutgers--The State University of New Jersey are trying to answer. They are studying selected schools in Maryland, New Jersey, Ohio, and Pennsylvania. Your high school is pleased to cooperate in this study and I hope you will be too.

Your name has been selected, by chance, as a representative of all of our graduates. Sometime during the coming summer you will be personally contacted by a representative of Penn State-Rutgers and asked to be interviewed. All of your answers will be held in strict confidence. Neither I nor any official of the ______ High School will ever see your individual responses. All answers will be combined in statistical tables for reporting.

I am sure you will find the interview interesting. You and a selected sample of other graduates are the only ones who can tell us how good, or poor, a job we are doing. The results should enable us to improve the preparation of other students, perhaps someday your children, for life and work.

Because so many of our students move after they graduate, we have enclosed a postcard to find out if the address we have for you is correct. If the address on the envelope containing this letter is wrong, please write your name and both your old and new addresses on the postcard and return it to Penn State. (No postage is necessary.) Girls who have married since graduating should also list their maiden and married names on the card.

I hope you will participate in this most worthwhile project.

Sincerely yours,

Signature
High School Principal

Enclosure 1

Reproduced below is a facsimile of the card enclosed with the letter sent to graduates.

If the address on the envelope containing this card is not correct, write your name and old and new addresses below, and mail this card, (Married girls should also list their maiden and married names.)

Name____

Old
Address______________________________________

____

(Married Name)_______________________________

New
Address______________________________________

____

Phone________________

Copy of type of letter sent to employers in medium size and small communities.

School System Letterhead

Dear Sir:

The ________ Public Schools are cooperating with the Pennsylvania State University and Rutgers, The State University of New Jersey, in a study of the employment experience of ________ high school graduates. The enclosed pamphlet describes in some detail the scope and goals of the study.

We are asking you and many of the other large employers in the _______ area to cooperate. Your organization has been randomly selected as representative of a specific type of _______ employer. Your cooperation is essential if the study is to reflect accurately the experience and opinions of all the area's employers.

Your participation would involve allowing an interviewer to visit your organization to talk with you concerning your employment of young people. Please use the enclosed card to indicate your willingness to cooperate. After your response has been received, an interviewer will contact you to arrange a time he can visit your organization.

We have discussed our study with the Chamber of Commerce and we are happy to enclose their supporting letter.

We feel certain that you, as an employer of our students, have much to gain from participating in this project. We shall look forward to receiving your affirmative reply.

Sincerely yours,

Signature
Representative of School System

Enclosures--Study Pamphlet
Chamber of Commerce Letter
Reply Postcard

Copy of type of letter sent to employers in large cities.

School System Letterhead

Dear Sir:

The _____________ Public Schools are cooperating with The Pennsylvania State University and Rutgers, The State University of New Jersey, in a study of the employment experience of __________ high school graduates. The enclosed pamphlet describes in some detail the scope and goals of the study.

We are inviting you and many of the other large employers in the _________ area to cooperate. Your organization has been randomly selected as a representative of a specific type of _________ employer. The cooperation of the selected employers is essential if the study is to reflect accurately the experience and opinions of all the area's employers.

Your participation would involve interviews with you, or a designated person on your staff, and three of your young employees by an interviewer from the _________ City Public Schools. We feel certain that you, as an employer of our students, have much to gain from participating in this project.

We have discussed our study with the Chamber of Commerce _____________ ________________ and we are happy to enclose their supporting letter.

Please use the enclosed card to indicate your willingness to cooperate. After your response has been received, an interviewer will contact you to arrange a time he can visit your organization. We shall look forward to receiving your affirmative reply.

Yours sincerely,

Signature
Representative of School System

Enclosures--Study Pamphlet
Chamber of Commerce Letter
Reply Postcard

Reproduced below is a sample of the chamber of commerce letter that was enclosed with the letter to employers. The actual wording of the letters from the several cities varied slightly.

Chamber of Commerce Letterhead

Dear Sir:

Your _______ ____ Chamber of Commerce is happy to cooperate with the _______ Public Schools, The Pennsylvania State University, and Rutgers, The State University of New Jersey, in their study of employment experiences. We feel this project can make a real contribution to our community and area. The results should help our schools in their training of our children as citizens and workers.

We urge all organizations in the ______ area to extend a welcome to these investigators.

Yours truly,

Signature
Chamber of Commerce Official

Facsimile of card sent to employer with letter requesting cooperation in survey.

Please use this card to indicate your willingness to participate in the study.

______ Yes, we wish to cooperate in your study.

______ No, we are not interested.

Name ____

Title ____

Organization ______________________________________

Address ____

________________________________ Phone ___________

INTERVIEW INSTRUCTIONS

Sampling Instructions: You have been supplied with an original list and a substitute list for both employers and graduates. The following instructions apply mainly to the graduate list, but in some instances, they may guide your procedure with employers.

Each name on the original list must be contacted three times. A contact is defined as either a personal talk with the respondent or his family or a personal visit to the address. An unanswered telephone call is not considered a contact. However, a personal visit to the address, even if no one is at home is considered a contact. This is a definition of convenience more than of logic. A personal trip is more time consuming and expensive than a telephone call, so we are only requiring three unanswered personal visits. These trips should be made on different days and at different times. Only after you have made three such unsuccessful attempts should a name be substituted. Of course, if your original contact results in a new, out-of-county address, or if you run into a blind alley (e.g. the building no longer exists), you would substitute also.

The 3 X 5 cards on which your sample is provided have space for listing your contacts. These should be filled in for every contact. For example, suppose on July 1, you call a respondent and arrange an interview for 7:00 p.m. the next day. On the card under CONTACTS 1) you would write "7/1/65" under Date; "Tele" for telephone under Method; and "Set up interviews 7/2/65, 7:00 p.m." under Result. When the interview was completed, you would enter the data and method beside 2) and write "Completed interview" under FINAL RESULT.

All cards of completed interviews or of respondents you could not reach after three contacts should be returned with your week's questionnaires.

If, in attempting to contact a respondent, you obtain a new out-of-county address, you should enter the new address in the space provided and return the card. Any unusual circumstances should be noted on the back of the card.

Initial Contact: Introduce yourself to graduates and employers alike as a member of the Penn State-Rutgers research team. If you are known to the respondent, state that though the local schools are cooperating in the study, the information is being gathered for Penn State-Rutgers and you are working for them. If there are any questions about who is sponsoring the project, it is the United State Office of Education, an office of the Department of Health, Education, and Welfare.

You may make as many initial contacts by phone as you can. Each employer has indicated his willingness to participate. Do not ask again for his participation. You might begin by thanking him for his cooperation, and then ask what date would be convenient for you to visit him.

All of the graduates will have received a letter from their high school signed by their principal. You may wish to begin your contact by mentioning this letter.

With both the employers and graduates, remember our emphasis is on the high school. How well are high schools preparing youth for employment. Avoid the implication that we are evaluating either the employer or the graduates. Instead, we are evaluating the school through their eyes.

General Instructions: Read all questions just as printed. Transitional phrases such as OK, fine, etc., can be put into your own words, if you feel more natural doing this. But do not rephrase questions or attempt to explain them. If the respondent does not understand a question, reread it. If he still does not understand it, go to the next question. Be sure to note that the respondent did not understand the question.

Complete all questionnaires with a ball point pen.

For any question the respondent cannot answer, you should write in "DK" for "Don't Know".

In recording responses to open-ended questions, you will have to abbreviate in some cases. Eliminate "getting started" remarks such as, "Well, I really don't know, I haven't thought about it," etc. Take down the gist of the answer, those comments that directly apply to the question. If the answer seems vague, probe with neutral comments such as "Can you tell me more, un huh, could you explain that," etc. Avoid leading comments such as "What you really mean, are you saying," etc. These may appear neutral, but often a respondent will not contradict an interviewer even if his true feelings are different. Allow the respondent time to think. A long pause to you may not be to a respondent who is preparing an answer.

Your general attitude towards all answers should be one of interested acceptance. Never allow a critical or surprised reaction on your part to be communicated to the respondent. Also, do not be defensive when you ask about pay, periods of unemployment, and other sensitive areas. Remember, you are gathering important information for a factual survey. A straight forward approach that indicates you expect an answer will usually be most successful.

SPECIAL SAMPLING INSTRUCTIONS FOR PIERCE, QUINN, AND RANDALL

All organizations you contact will have indicated their willingness to cooperate in our study. During your initial telephone call, ask the organization's representative to draw up a list of ten high school graduates, indicating their high school and year of graduation. Ask him to limit the list to graduates of the years 1960 to 1964. We do not want 1965 graduates. These students have not had time to accumulate work experience. Be sure to explain that though you are asking for a list of ten, you only wish to interview three. If the organization's representative asks how many men and women you want listed, ask him to list them in about the same proportion as they are represented in the company.

When you arrive for the interviews, select graduates from the list to fit your quota sheet. Pick the harder to fill quotas, so identified, first. In the organizations where we have indicated you are to obtain ratings on your respondents, show the scale to your contact man. Determine with him just how you will contact the supervisors to obtain the ratings. After each interview you may wish to return with your respondent to his department and secure the rating at that time. Or you may wish to wait until you have completed all interviews. Work it out in the most efficient manner, but be sure to alert the organization's representative as to just what you want to do.

In those companies where you interview the personnel director, or his equivalent, be sure you leave the attitude scale with a business reply envelope. The scale, of course, is to be returned directly to Penn State and not to you.

GRADUATE FORM

Identification data: The identifying information can be filled in either before or after the interview. The class and program is to be copied from the sample card. The student is then asked for the same information in Q. 1 and 2. This procedure cross checks our data. the interview date and starting time should be filled in at the beginning of the interview. At the completion of the interview also, be sure to enter the time. Be sure to put your name on all questionnaires.

Introduction: Read just as printed. Try not to add extra comments or explanations.

Q. 1: Whenever dates are asked for, month and year is sufficient.

Q. 2: Remember, for the purposes of our study, the following curriculums are considered vocational: agriculture, distributive education, home economics, office occupations, trade and industrial, and technical. Specify the particular vocational program as precisely as possible. Some graduates we consider general, may report themselves as vocational. If this occurs, accept their answer and ask them which program.

Q. 3: This is the first use of a filter. The filter is indicated by the (IF). It is usually used after a Yes or No response. The sub-parts of the question are asked only if the indicated response is received. If there is no (GO TO--) following the other response, you should ask the next question. If there is a (GO TO--), you skip to the question indicated. For example, question 4. f. after No __ has a (GO TO g). This means you skip the ratings and go directly to 4. g. Incidentally, instructions to the interviewer are always in all capital letters. These instructions are not to be read to the respondent.

Q. 4: This is the most important question in the schedule, as indicated by its length. If the respondent does not understand our definition of a job, all the job histories you compile will be meaningless. Read the definition carefully. Give the respondent the rating scale and allow him time to examine it. Give the respondent the little quiz at the end of the definition. If respondent seems confused about the definition, reread the parts he does not understnad. Do not proceed until you are sure respondent understands our definition of a job.

Once you are sure he understands, complete a Post-High School Work History for every job the individual has held that fits our definition. Start with the first job he held after he graduated and come up to the time of the interview.

4. a) Number each job consecutively.

4. b-c) These questions allow you to check whether the job meets our definition. If the period is not at least three months, and the average hours not at least thirty hours a week, ask the respondent to explain.

4. d) Get a complete job title. Clerk is a poor response; sales or bookkeeping clerk is better. Engineer is a poor response, civil or railroad engineer is better. If there is any question in your mind, ask the respondent to elaborate.

4. e) This question attempts to verify 4. d. We want to see if the job title and description agree.

4. f) Ask for the names of courses and for ratings on SIDE I of the rating card only if respondent answers "Yes".

Questions g thru j should be asked for each company for which the respondent has worked. If the respondent has held more than one job with a company, questions g thru j should be omitted for work history sheets for other jobs with that company.

4. g-i) Self-explanatory.

4. j) List the total length of time respondent has worked for the company regardless of the number of different jobs he held with the company. If respondent is still with the same company, this should be noted.

4. k) Some typical answers would be private employment agency, applied to personnel office, answered ad. Promotions or selections from another department are possible answers.

4. l) If you ask this question in a matter-of-fact manner, people will usually answer it. Make sure the rate is indicated. If there is any reluctance, reassure the respondent his answers are strictly confidential. If he still refuses, simply pass over it.

4. m) List the months and years if there are lay-off periods. If respondent cannot give you the dates, ask him to estimate the total number of months he was laid off.

4. n) Handle same as 4. l.

4. o) Ask respondent to rate each of the areas listed. Work refers to the nature of the work itself; pay--self-explanatory; promotion refers to the opportunities for promotion; supervision--self-explanatory; people refers to the majority the respondent worked with or met in connection with his work.

4. p) If answered "Yes", fill out another work history sheet omitting g thru j. (A Yes answer indicates the respondent held another job with the same company) If answered "No", ask the sub-questions and fill out a work history sheet for the next job held.

When you have obtained work histories for all jobs, give the respondent the JDI to complete. Be sure you emphasize it is to be filled out to describe the last job for which you completed a work history. The work areas in the JDI are the same as those listed under item 4. o. in the work histories. While he is completing this, you may check your work history sheets for accuracy and completeness.

When the interview is completed, the separate work history sheets and JDI should be inserted in the middle of the questionnaire. Be sure the respondent's name is on all materials.

Q. 5: a-d) This question also refers to the last job for which you completed a work history. We wish to obtain this information so we can send a job rating scale to selected supervisors. Not all of your respondents will have a scale sent to their supervisors, but we want to obtain this information on all of them.

Q. 6: Ask only of males. If response is "Yes", fill out Military Service Record. If respondent is female, so check.

6. a) Check answer.

6. b) Regular enlistments and draftees both serve in the regular service. Reserve and National Guard enlistments have a special status and should be identified.

6. c) Regular enlistments and Reserve and National Guard enlistments should be checked under "Enlist".

6. d) Attempt to get at reasons. Was it just to fill an obligation? Was it an alternative to unemployment? Was it an attempt to obtain training? Most of those you interview who have had military service will have entered before they were drafted. There must have been some motives that cuased them to enter the service when they did. Try to assess these motives.

6. e) Obtain month and year.

6. f) Make sure the rank is clear. The Army, for example, has five types of sargeants and five types of specialists. Determine which level the respondent means.

6. g) After basic training, almost everyone in the service receives advanced training. Sometimes this is only advanced combat training, but often it is skill training.

6. h) Ask type of training only if answer is "Yes".

6. i) Ask for rating only if answer is "Yes".

6. j) List all regular full-time jobs held by respondent. Most lower ranking service men also are assigned extra duties such as KP, guard duty, etc., on a rotating basis. We are not interested in these. We are interested only in regular jobs.

6. k) Ask if service experience helped respondent to get a job only if respondent does not volunteer this information.

6. 1) Do not read respondent the choice neutral, but check it if it is volunteered.

At the completion of the interview, insert the military service record in the middle of the questionnaire. Be sure respondent's name is on sheet.

Q. 7: This question is limited to special education or training programs where the time was actually spent in the learning process. This rather restrictive definition is used because almost all jobs have a period of on-the-job training. We wish to eliminate this type of training. We want to concentrate on programs where the time was specifically devoted to training or education.

On the other hand, we are not limiting the definition to job related training. Any type of organized educaitonal program qualifies: evening school, correspondence courses, vestibule schools, etc. If you have already obtained information on military service training, do not repeat it here.

If the answer to question 7 is "Yes", fill out the questions a thru h. If the respondent has taken more than one program, fill out additional education-training histories. You should use the backs of the work histories.

7. a) Be sure to number the programs consecutively. Number them in the order in which they were taken. It is possible the respondent took part in two programs at the same time. Number the one started earlier lower. It is not necessary that the training histories be on the same numbered sheets as the work histories. That is, training program #1 does not have to be on the same sheet as Job #1.

7. b) Try to learn the skills or knowledge the program gave the respondent. The answer may be in terms of a particular job, "cashier, mechanic;" certain skills, "how to fix TV sets;" or a general education goal, "to understand music".

7. c) Month and year. If the response to completion is "No" try to get an amount, "half, 75 per cent", or something similar. An answer in terms of content covered is not as useful because the courses will vary so much.

7. d) These should be hours directly devoted to the learning experience.

7. e) Some training may be partially supported by both the respondent and the company for whom he works. In these cases, check "Both" and ask the sub-question.

7. f) Ask the sub-question and obtain ratings only if the response is "Yes".

7. g) Attempt to get at unfulfilled expectations. What did the respondent hope the training would provide that it did not provide?

7. h) If the answer is "Yes", be sure to complete another training history sheet.

Q. 8: a) Record just what the respondent says except for irrelevant comments. Nod your head and "un huh" his replies. Put down anything that seems to be a genuine free association.

8. b) Self-explanatory.

8. c) Record anything the respondent volunteers no matter how seemingly irrelevant.

8. d) Self-explanatory.

8. e) Attempt to get at motivations. There may be a variety--job plans, parental pressure, friends were taking these courses--any answer that gets at the reasons behind the choice is acceptable.

8. f) Ask sub-question only if response is "Yes". Attempt to get an evaluation of the usefulness in terms of the respondent's post-high school experience.

8. g) If the respondent hedges that it depends on the student, reply, "Well, suppose the student were pretty much like you were at that age."

8. h) This is the most complicated set of filter questions in the questionnaire. In each case, the sub-part is asked only if a "Yes" is given to the higher part.

8. i-l) Self-explanatory.

8. m) Read all the alternatives to the respondent. If his answer is "Average, little, or didn't try", ask the sub-question.

8. n) If respondent seems unable to answer, ask about general type of work and skill level he hoped to get. Indications of whether his hopes were white or blue collar, whether he hoped the job would provide training, if he felt some commitment to his choice, would all be helpful.

8. o) If "Yes", try to get an evaluation in terms of present occupation and life plans. The guidance need not have been directed towards a specific occupation to have been helpful. If it caused the respondent to think about himself, if it made him aware of the necessity of choice, it may have done its job.

8. p-t) These questions are quite important in estimating the respondent's socio-economic origins. We ask about the father's and mother's occupation and education. If neither was present in the family during the respondent's high school years, check the appropriate response and ask question t. If either parent was present do not ask t.

Q. 9: Do not read respondent the alternative "same _____". It is provided for your check mark if respondent volunteers it.

9. a) Self-explanatory.

9. b) Record any comment respondent volunteers. An expectant pause after his answer will usually produce elaboration.

Q. 10: Attempt to get answer in the same terms as 8. n.

Q. 11: The emphasis is on occupation. For girls, of course, keeping house is an occupation.

Q. 12: Age--self-explanatory.
Married-Single--self-explanatory.
Other--separated, divorced would be possible answers.
Number of dependents--do not count respondent himself.
Ask if respondent maintains his own home. Check the type. If "Yes", ask if he lives with parents, and if "No", ask whom he lives with.

Q. 13: Do not ask the remaining items, simply record your observations.
Male-Female, White-Nonwhite--self-explanatory.
Observable disabilities--glasses, hearing aids, missing limbs, etc.

Completion: Be sure all materials are returned. Be sure the respondent's name is on all materials. Each separate work history, training history, and military record sheet should have the respondent's name in the upper right hand corner.

EMPLOYER FORM

Q. 1: This is a general attitude question. It is asked as much to establish rapport as it is to tap real attitudes. Do not probe too deeply on this question. It is better to let the respondent see that this is not going to be a difficult task and that he will be able to answer the questions. Still, be sure you record any answers.

Q. 2: Almost certainly, all employers you contact will have jobs for which they hire young people. If they did not, they would not have agreed to cooperate in our study. This question should not be interpreted as jobs for which they only hire young graduates, but as any job for which young people are hired. For example, most large garages only hire young men for new car cleanup, but they may hire a properly trained young man as a mechanic or for the parts room.

We are interested in any job a young person can be hired to fill. If the employer neglects to include some workers you are sure he hires, such as young secretaries, you may ask him about these directly. Take time and try to make the list as complete as possible.

2. a) Try to find the general policy reasons why young people are preferred.

2. b) Ask one or the other sub-questions depending on answer to main part.

Q. 3: Read this question completely, then fill out a job sheet for each job listed under question 2.

3. a) Write in the name of each job.

3. b) Self-explanatory.

3. c) What does the holder of this job do each day.

3. d) Record the respondent's free response. We did not use a check list for the techniques tend to be prestige answers and companies like to give the impression they use all of them.

3. e) Ask sub-questions only if response is "Yes".

3. f) Almost all organizations give some on-the-job training. We are more interested in away from the job, organized training programs.

3. g) Employers will tend to answer this more in terms of "conventional wisdom", than particular job demands. They want conscientious, hardworking, reliable, etc., workers. Record these comments, but try to return to the specific job. What specifically are workers lacking for this job.

Complete a job sheet for each job. Use both sides of each sheet. After a few jobs are reported, there may be no differences in the employer's responses. If he indicates "Same as before" or something similar, write "ND" for No Difference in the spaces. Be sure you attempt a separate sheet for each job. There may be some differences that will turn up. Put the organization's name in the upper right corner of each sheet and place them in the middle of the questionnaire when the interview is completed.

Q. 4: Read each of the sources and check if he uses them or not. Record any comments on the particular source. Ask the two questions below the sources and record answers as indicated.

Q. 5: Here we are aiming at the source of their training. Do they pick it up on their own, on the job, in school, in the service, etc?

Q. 6: If a "Yes" response is received, ask the sub-question. Ask the indicated sub-questions to a "Yes" or "No" answer.

Q. 7: Read the question up to the "(PAUSE)". If respondent begins to answer, do not read the rest. Read the sub-question on boys and girls unless the respondent answers this without you asking it.

Q. 8: If the titles of the jobs volunteered in answer to this question are not clear, ask about the skills involved in the jobs. Make clear just what skills are now needed.

8. a) This will be a hard question to answer. We are mainly interested in whether he volunteers, without prompting, the high schools as a possible source. If he does not, ask the indicated question. In either case, be sure you record the answers in the appropriate space. That is the only way we can tell if the respondent needed prompting.

Q. 9: We are trying to see if the employers can project their future needs and whether they are doing any long-range thinking.

Q.10: a-e) Read each situation slowly. Read each of the alternatives completely and attempt to get the respondent to choose. He may qualify his answers. If he does, record any pertinent qualifications in the spaces provided.

Q.11: Read the introductory statement. This is the first time the words "vocational education" are used in this form.

11. a) Do not suggest courses, but take your time with this question. Use probes such as "Anything else, Can you think of any others," etc., to amplify the respondent's answer.

11. b) List any types of contacts, formal or informal.

11. c-d) These can be answered by a "Yes" or "No", but there will usually be some comment.

11. e) Record any suggestions.

11. f) By all-around ability, we mean alertness, interest, ambition, not just mechanical or intellectual ability. Some employers may want to limit their definition to a specific ability. We are interested in general ability.

Q. 12: Classification data is self-explanatory.

Interview Completion: Be sure to leave an attitude scale and a business reply envelope with each respondent. Make sure the organization's name is on all job sheets you completed and on the final page. Insert all materials in the middle of the questionnaire for returning.

UNION FORM

Many of the questions on this form are similar to the Employer Form. Hence we have shortened our explanations. New questions are explained more fully.

Q. 1: A rapport question. Do not press too hard.

Q. 2: If answer is "None", go to Question 3. If some joined, ask 2. a.

Q. 3: a-c) Similar to Employer Form Question 11. a, b, c, except for (IF NOT MENTIONED). Ask this part only if respondent does not volunteer this information. Be sure you record answer in correct area so we will know if respondent was prompted.

Q. 4: Linger with question a bit. We are trying to see, especially in craft unions, if it is necessary to be a relative of a present union member. Do not ask this directly, but give it time to come out.

Q. 5: This device is an attempt to see if younger people are considered "good" union members. Read the instructions and ask if they are understood. Then read each phrase separately. Attempt to get the respondent to choose in each case. If he will not say one or the other, check "No Difference".

Q. 6: a) Similar to Question 8. a. and 9. of Employers Form.

6. b) Try to find out if he just thinks his union can do the things he suggests or whether they are making real plans to do these things.

6. c) If there is an apprenticeship program, ask Question 7; otherwise, skip to Question 8.

Q. 7: Try to find out number of years involved, how administered, where applicants come from, etc.

7. a) An attempt to see if entrance has been made more restrictive.

7. b-c) Self-explanatory.

7. d) If "Yes", find out how the school and union work together. Try to see if there is a real or just nominal cooperation.

7. e) Similar to Question 3. g. of Employer Form.

Q. 8: "Any other type" means other than apprenticeship. If "Yes", find out who sponsors the programs, who and what they train, and where the union fits into the program.

Q. 9: Let the respondent talk. Try to get at his general feeling. Is he positive or negative.

9. a) If "Yes", ask Question 9, b, c, d. If "No", skip to GENERAL INFORMATION.

9. b) Once again try to get general attitudes.

9. c-d) Self-explanatory.

GENERAL INFORMATION: All items self-explanatory.

INTERVIEW COMPLETION: Insert final sheet in middle of questionnaire. Be sure union name and city is on Final Page. Leave attitude scale and business reply envelope for respondent to complete and return to Penn State.

JOB RATING SCALE

SAMPLING: This is a special scale that is to be used with only one out of every four male graduates you interview. You should start with the ______ male you select to interview. Then use it with every fourth male that you select after that one. We stress "select" for you may select a male and not be able to reach him. Do not use it with the next male you interview. Instead use it with the male you substitute for the one you cannot reach. By using it only with the males you select, we avoid the bias of more use with the easier-to-reach respondents. Once you select a male, he or his substitute becomes the one with whom you should use the scale.

USE: Give the respondent the ideal scale (the one with the cover page and flap) as soon as you have read the introduction on the questionnaire. The scale is self-administering. When he has completed the scale, fill in the questionnaire through Question 4. When you have completed all the work history sheets for the respondent, give him the JDI to complete. As he is completing that, do the following things:

1) Select the 5 jobs he has held the longest. Use all if he has not held 5.

2) Put the job title after "Job" and the dates held in the spaces provided.

3) Number the jobs in chronological order in the parentheses provided after the dates.

4) Arrange the jobs in this randomly determined order __________, __________, __________, __________, __________. Use this order for all your interviews.

5) Give the respondent each scale separately in the order indicated in 4.

6) When the respondent has completed all scales, give him all 5 and ask him the job he liked the best. Take this one and put a "1" to the left of "Job".

7) Ask him the one he liked least. Put a "5" or the lowest number of the total jobs next to "Job".

8) Of those remaining, ask him which he liked best. Take this and put a "2" next to "Job".

9) Continue asking best and least liked until you have completed ranking all jobs.

Be sure the respondent's name and city is on each scale. Insert them in the middle of the questionnaire for returning.

Reproduced below is a copy of Page 1 of the Work History Interview Schedule. The spacing has been altered.

NAME____CLASS_____PROGRAM_____
ADDRESS_____________________________________Interview Date_________
____________________________Phone__________Interview Time____to____
INTERVIEWER____________________________

INTRODUCTION: Penn State and Rutgers are trying to find out how well high schools are preparing their students for employment. You have been randomly selected as a representative of all the students who graduated between 1960 and 1964. I would like to ask you some questions on your employment experience since leaving high school. All of your answers are completely confidential and will be revealed to no one.

1. What date did you graduate?__________________
2. What was your major course of study when you were in high school?
   Academic____General____Vocational____Which program?____________
3. Did any of your high school courses help you when you started to look for a job? Yes____(IF YES) Which Ones?__________________
   No____ ____________________________________
4. (READ SLOWLY AND CAREFULLY) I'd like to ask you a set of questions for each job you held for three months or longer since you left high school. We are interested in jobs you worked at for at least 30 hours or more a week, and held for at least three months. By limiting the interview to these jobs, it makes it a little shorter.

   If you held two different jobs with the same company, that is, jobs where you did two different kinds of things, I would like you to tell me about these separately. For example, if you were a truck driver (FOR GIRLS, FILE CLERK), and then became a warehouse worker (FOR GIRLS, SECRETARY), we consider these two different jobs even though they were with the same company.

   I'll ask you the same set of questions about each job. Here is a card. You will need this to answer some of the questions. (ALLOW RESPONDENT TIME TO INSPECT CARD.)

   Do you have any questions? (IF NOT) OK, these may seem rather simple, but I would like to ask you three questions to make sure you understand the jobs we are interested in.

   a. How long should you have held a job to tell me about it?
      3 mos.___; Other________
   b. How many hours a week should you have worked at a job?
      30 hrs.____; Other_______
   c. Do we want to know about different jobs you held with the same company? Yes___ No___

   (IF RESPONDENT ANSWERS ANY QUESTIONS WRONG, CORRECT HIM.)

   OK, fine, let's start with the first job you held for three months or longer after you graduated. (FILL OUT WORK HISTORY SHEET.)

Reproduced below is a copy of Page 2 of the Work History Interview Schedule. The spacing has been altered.

FOR PRESENT OR LAST HELD JOB

I have here a booklet of words and phrases describing different aspects of a job. (GIVE JDI) I'd like you to fill it out to describe your present (last) job.

5. I'd like to ask you a few more questions about this last job.
    a. About how many employees does the company have?____________
    b. What is the street address of the company?________________
    c. Who is (was) your direct supervisor?____________________
       What is (was) his title?__________________________
    d. Would you object if we asked your supervisor to fill out a rating scale concerning your work? Yes____No____

IF RESPONDENT IS MALE AND HAS NOT MENTIONED MILITARY SERVICE EXPERIENCE ASK

6. Have you ever been on active duty with the armed service for three months or longer? Yes___(IF YES) FILL OUT A MILITARY SERVICE RECORD No____ Respondent is female_____
7. Have you taken part in any educational or training programs since you left high school? I don't mean on-the-job training. I mean special programs where the time was spent learning new skills or knowledge. Yes____(IF YES) I'd like you to tell me about all such programs you have taken. Start with the first one you studied after you left high school. (FILL OUT A TRAINING HISTORY SHEET.) No____
8. Now I'd like to ask you some questions about when you were in high school.
    a. When I say "high school" what do you think of? Tell me the first words that come into your mind. ____________________
       ____
    b. In general, did you like____or dislike____high school? (Neutral____) (COMMENT)____________________
       ____
    c. Of all the things in high school, courses, activities, friends, athletics, all of the things that made up your school life, what did you like the most? ________________
       ____
       What did you like the least? ______________________
       ____
    d. What courses did you like the most? __________________
       ____
       What courses did you like the least? ________________
       ____
    e. Why do you think you chose the courses you took in high school? ________________________________
       ____

Reproduced below is a copy of Page 3 of the Work History Interview Schedule. The spacing has been altered.

f. Did you ever discuss your course choices with a guidance counselor? Yes___(IF YES) Looking back, how helpful do you think these discussions were?______________________

____

g. If you were talking with a young person just starting high school, would you suggest he (she) take the courses you took? Yes____ No____ (IF NO) What courses would you suggest he (she) take?__________________________________

____

h. When you were in high school, did you have a group of friends you usually did things with, like eat lunch, go to athletic events, and so on?
Yes___(IF YES) Did most of these friends take the same courses
No__(GO TO i) you did?
Yes___(IF YES) Did you ever feel that students
No__(GO TO i) who took other courses were in some ways different from you and your friends?
Yes__(IF YES) In what ways were they different?____________
No__ ______________________

____

____

i. Did you ever feel other students or teachers "looked-down" on you because of the courses you took? Yes____, No____

j. Do you think it was harder to take part in school activities because of the courses you took? Yes____, No____

k. Did you feel you were really a part of the school? Yes___,No___

l. Do you think your school made a real effort to prepare you to go out and get a job? Yes____, No____

m. How hard did you, yourself, try in high school to get the training necessary to be able to get a job?

Would you say you -	(IF AVERAGE, LITTLE, OR DIDN'T TRY)
___ Tried very hard	Why do you think you didn't try
___ Tried Hard	harder in high school?_____________
___ Tried as much as the average student	______________________
___ Tried a little	______________________
___ Didn't try much at all	______________________

n. When you were still in high school, what kind of job did you hope to get when you graduated?______________________________

____

o. Did you ever discuss your job plans with a guidance counselor?
Yes___(IF YES) Looking back, were these talks of any long-range
No____ help? ______________________________

p. What was your father's occupation when you were in high school?
______________________ Do you know how far your father went
Father not present________ in school?____________________

q. Do you know how far your mother went in school?________________

Reproduced below is a copy of Page 4 of the Work History Interview Schedule. The spacing has been altered.

r. Did your mother work while you were in high school?
Yes____(IF YES) What did she do?________________________
No_____ Did she work part-time__or full-time____?
Mother not present______

s. About how much money per year did your family have to live on when you were in high school?____________________

IF EITHER PARENT PRESENT GO TO 9.

t. Whom did you live with when you were in high school?_______

9. Do you think you have more____or less____chance to get ahead than your parents did when they were your age? (Same____)
COMMENT____
____

a. Which do you think is more important in getting ahead, hard work____or good luck____?
(Same____) COMMENT_________________________________
____

b. If someone were to offer you two jobs, one a secure job with an adequate income, the other not so secure, but with more opportunity, which one do you think you would take?
Secure____ COMMENT_________________________________
Opportunity____ __________________________________

10. Of the jobs you think you could handle, what kind would you most like to have right now? _________________________
____

11. If things go pretty well for you, what do you think you will be doing 5 years from now? How much money per year do you think you or your family will have to live on?
Doing__________________________ Money $________________
How about in 10 years?
Doing__________________________ Money $________________

12. Finally I'd like to get some classification data.
Age____Married____Single____Other (SPECIFY)_____Number of dependents__________
Do you maintain your own home? House____, Apt____, Room_____,
Other (SPECIFY)_______________________________________
Yes____(IF YES) Do you rent____or are you buying____
No_____(IF NO) Do you live with your parents?____ Soc Sec #______
Yes____
No____(IF NO) Whom do you live with?__________

DO NOT ASK RESPONDENT, RECORD FOLLOWING DATA

Male	White	Observable Disabilities
Female	Nonwhite	Yes____(DESCRIBE)__________________________
		No_____ __________________________

Reproduced below is a copy of the Post-High School Work History Sheet. The spacing has been altered.

NAME________________________

a. Job number__________
b. When did you start this job?______When did you leave it?______
c. How many hours a week did you work on the average?________
d. What was the job called (TITLE)?____________________________
e. What did you do (JOB DESCRIPTION)?__________________________

f. Did any of the courses you took in high school help to prepare you in any way for this job?
Yes____(IF YES) Which Courses were they?______________________
No____(GO TO g)

Using SIDE 1 of the card, tell me how well these courses prepared you for this job? (CIRCLE THE NUMBER THE RESPONDENT GIVES) Equip 1 2 3 4 5 6 7 Skills 1 2 3 4 5 6 7 Math 1 2 3 4 5 6 7 Sci 1 2 3 4 5 6 7 Comm 1 2 3 4 5 6 7

DO NOT USE QUESTIONS g-j FOR ADDITIONAL JOBS WITHIN SAME COMPANY

g. For whom did you work (NAME)?_______________________________
h. What does this company do (PRODUCT OR SERVICE)?_____________
i. Where is it located (CITY AND STATE)?_______________________
j. How long were you with this company?________________________

k. How did you get this job?___________________________________
l. What was your starting pay?____per (CIRCLE ONE) hr wk mo other (SPECIFY)______________________
m. Were there any periods on this job when you were laid off and later called back to the same job?
Yes____ (IF YES) When were these periods?_____________________
No____
n. What was your pay when you left this job____ per hr wk mo other (SPECIFY)____________________
o. Using SIDE II of the card, tell me how satisfied you were with each of the areas of the job that is listed. (CIRCLE THE NUMBER THE RESPONDENT GIVES) Work 1 2 3 4 5 6 7 Pay 1 2 3 4 5 6 7 Prom 1 2 3 4 5 6 7 Super 1 2 3 4 5 6 7 People 1 2 3 4 5 6 7
p. Did you have any other jobs with this company?
Yes____(IF YES) What was your next job? FILL OUT ANOTHER WORK HISTORY SHEET
No_____(IF NO) Why did you leave?______________________________
How long were you unemployed between jobs?______
What was your next job? FILL OUT ANOTHER WORK HISTORY SHEET

Reproduced below is a copy of the Post-High School Education-Training History Sheet. The spacing has been altered.

NAME____________________________

a. Program number______________________

b. What did the program train you for?____________________________

____

____

c. When did you start the program?____________________________

When did you leave the program?____________________________

Did you complete it?

Yes_____

No______ (IF NO) About how much did you complete?______________

d. How many hours per week did you spend in class or supervised practice? ______hours.

e. Did you take this training on your own, was it given to you by a company you worked for, or how did you get it?

On own____(IF ON OWN OR BOTH) Was the training free of did you

Company____ have to pay?

Both_______ Free____

Pay___(IF PAY) How much did it cost?____

Other (SPECIFY)____

____

____

f. Did any of the courses you took in high school help you to learn the new skills of this program?

Yes_____(IF YES) Which Courses?____________________________

No____(GO TO g) ______________________________________

____

Using SIDE 1 of the card, tell me how well these courses prepared you for this training. (CIRCLE THE NUMBER THE RESPONDENT GIVES)

Equip 1 2 3 4 5 6 7 Skills 1 2 3 4 5 6 7 Math 1 2 3 4 5 6 7

Sci 1 2 3 4 5 6 7 Comm 1 2 3 4 5 6 7

g. Were you satisfied with the results of the training program?

Yes_____

No______ (IF NO) Why weren't you satisfied?____________________

____

____

____

h. Have you taken any other educational or training programs?

Yes_____ (IF YES) FILL OUT ANOTHER TRAINING SHEET

No______ (GO TO 8)

Reproduced below is a copy of the Military Service Record. The spacing has been altered.

NAME________________________

a. Which branch did you serve in?
Air Force _____
Army _____
Marines _____
Navy _____
Other (SPECIFY)________________

b. Was this -
Regular service____
Reserves _____
National Guard _____

c. Did you enlist?____, were you drafted _____, or did you volunteer for the draft_____?

d. Why did you enter the service when you did?____________________
____
____

e. What date did you go on active duty?________ When were you released? ________________

f. What was your rank when you entered? ________________
when you left? ________________

g. After basic training, what type of specialized training did you receive? ________________________________
____

h. Did you ever receive any other training when you were in the service?
Yes ___ IF YES)

TYPE OF TRAINING	MONTHS
________________	________
________________	________

No ___

i. Did any of the courses you took in high school help to prepare you in any way for any of this training?
Yes____(IF YES) Which courses were they?____________________
No_____(GO TO j) ________________________________

Using SIDE 1 of the card, tell me how well these courses prepared you for this training. (CIRCLE THE NUMBER THE RESPONDENT GIVES)
Equip 1 2 3 4 5 6 7 Skills 1 2 3 4 5 6 7 Math 1 2 3 4 5 6 7
Sci 1 2 3 4 5 6 7 Comm 1 2 3 4 5 6 7

j. What jobs did you have in the service, what were your duties, and how long did you have them?

JOBS	DUTIES	MONTHS
____________	________________	________
____________	________________	________
____________	________________	________

k. Did any of the training or experience you received in the service help you when you returned to civilian life?
Yes____(IF YES) How did it help?____________________________
No ____ ____
(IF NOT MENTIONED ASK) Did it help you get a job? Yes _____, No _____

l. In general, would you say you liked _____ or disliked _____ your time on active duty? (neutral _____)

Reproduced below is a facsimile of the card used to rate high school preparation.

Use this side of the card to rate how well the courses you took in high school prepared you for this job or training.

1 means you received very little preparation

7 means you received excellent preparation

HOW PREPARED WERE YOU IN-		VERY LITTLE PREPARATION				EXCELLENT PREPARATION	
Use of Equipment	1	2	3	4	5	6	7
Job Skills	1	2	3	4	5	6	7
Necessary Skills of Mathematics	1	2	3	4	5	6	7
Science	1	2	3	4	5	6	7
Communication	1	2	3	4	5	6	7

Reproduced below is a facsimile of the card used for rating job satisfaction.

Use this side of the card to rate how satisfied you were with each of the areas of the job that is listed.

1 means you were completely dissatisfied with this area

7 means you were completely satisfied with this area

		DISSATISFIED				SATISFIED	
WORK	1	2	3	4	5	6	7
PAY	1	2	3	4	5	6	7
PROMOTION	1	2	3	4	5	6	7
SUPERVISION	1	2	3	4	5	6	7
PEOPLE	1	2	3	4	5	6	7

Below is a fascimile of Page 1 of the Job Descriptive Index which was labeled Job Description in the study.

JOB DESCRIPTION

INSTRUCTIONS: This booklet contains a list of words and phrases that can be used to describe a job. At the top of each page a particular area of the job is listed. The words on the page may or may not describe this area of your job. Put a Y for "Yes" in front of each word or phrase that actually describes your job in that area. If the word does not describe your job, put an N for "No". If you cannot decide whether the word describes your job or not, put a question mark ? in front of it.

Name ____________________________

City ____________________________

Below is a fascimile of Page 2 of the Job Descriptive Index.

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Cornell University

Below is a fascimile of Page 3 of the Job Descriptive Index.

WORK

_______ Fascinating
_______ Routine
_______ Satisfying
_______ Boring
_______ Good
_______ Creative
_______ Respected
_______ Hot
_______ Pleasant
_______ Useful
_______ Tiresome
_______ Healthful
_______ Challenging
_______ On your feet
_______ Frustrating
_______ Simple
_______ Endless
_______ Gives sense of accomplishment

Below is a facsimile of Page 4 of the Job Descriptive Index.

PAY

________ Income adequate for normal expenses

________ Satisfactory profit sharing

________ Barely live on income

________ Bad

________ Income provides luxuries

________ Insecure

________ Less than I deserve

________ Highly paid

________ Underpaid

Below is a facsimile of Page 5 of the Job Descriptive Index.

SUPERVISION

__________ Asks my advice
__________ Hard to please
__________ Impolite
__________ Praises good work
__________ Tactful
__________ Influential
__________ Up-to-date
__________ Doesn't supervise enough
__________ Quick-tempered
__________ Tells me where I stand
__________ Annoying
__________ Stubborn
__________ Knows job well
__________ Bad
__________ Intelligent
__________ Leaves me on my own
__________ Around when needed
__________ Lazy

Below is a facsimile of Page 6 of the Job Descriptive Index.

PROMOTIONS

________ Good opportunity for advancement

________ Opportunity somewhat limited

________ Promotion on ability

________ Dead-end job

________ Good chance for promotion

________ Unfair promotion policy

________ Infrequent promotions

________ Regular promotions

________ Fairly good chance for promotion

Below is a facsimile of Page 7 of the Job Descriptive Index.

PEOPLE

_________ Stimulating
_________ Boring
_________ Slow
_________ Ambitious
_________ Stupid
_________ Responsible
_________ Fast
_________ Intelligent
_________ Easy to make enemies
_________ Talk too much
_________ Smart
_________ Lazy
_________ Unpleasant
_________ No privacy
_________ Active
_________ Narrow interests
_________ Loyal
_________ Hard to meet

Reproduced below is a copy of Side One of the Supervisor Rating Scale. The spacing has been altered.

To be completed by the immediate supervisor of____________________.

Use this scale to rate the job performance of the employee listed above. Please be honest. No one connected with your organization will ever see these ratings. They will be used by Penn State and Rutgers Universities to determine how well high schools are training students for employment. When you have completed the form, seal it in the envelope attached and return it.

This scale lists four general areas of work performance. Under each general area there are descriptions of certain worker traits. Rate the employee listed above by circling the letter that best describes this employee on this trait.

U = Unsatisfactory
BA = Below Average
A = Average
AA = Above Average
O = Outstanding

If a trait does not describe this employee's job, circle NA for Not Applicable.

AREA A: OCCUPATIONAL KNOWLEDGE

1.	Technical knowledge and understanding shown in work	U BA A AA O NA
2.	Understanding of mathematics related to work	U BA A AA O NA
3.	Understanding of sciences related to work	U BA A AA O NA
4.	Communication skills, ability in oral, written, and mechanical techniques of communicating	U BA A AA O NA

AREA B: MANIPULATIVE SKILLS

1.	Quality of work, ability to meet quality standards	U BA A AA O NA
2.	Quantity of work, output of satisfactory work	U BA A AA O NA
3.	Job know how, application of acquired knowledge and skills	U BA A AA O NA
4.	Proper use of tools and equipment	U BA A AA O NA
5.	Correct selection and care of materials and supplies	U BA A AA O NA

(Please turn to other side)

Reproduced below is a copy of Side Two of the Supervisor Rating Scale. The spacing has been altered.

U = Unsatisfactory
BA = Below Average
A = Average
AA = Above Average
O = Outstanding

AREA C: PERSONAL AND SOCIAL QUALITIES

1. Cooperativeness, ability to work together with people	U BA A AA O NA
2. Self-control, ability to control one's emotions	U BA A AA O NA
3. Reaction to advice and constructive criticism	U BA A AA O NA
4. Adaptability, capacity to adjust to new problems and changing situations	U BA A AA O NA

AREA D: WORK QUALITIES AND HABITS

1. Industry, personal application to work assigned	U BA A AA O NA
2. Dependability, thorough completion of a job without supervision	U BA A AA O NA
3. Safety habits, minimizing chances for accidents	U BA A AA O NA
4. Attendance, reporting for work regularly	U BA A AA O NA
5. Punctuality, reporting for work on time	U BA A AA O NA

SUMMATION:

1. Rate the employee's overall performance on this job	U BA A AA O
2. Rate the employee's overall preparation for this job	U BA A AA O

Rated by______________________________ Position_____________________
(Name)

ORGANIZATION____

Address____
(Street)

____
(City)

Date Rating Completed__________________________

Reproduced below is a facsimile of the cover of the Job Rating Scale (Ideal Form).

We would like to find out the characteristics people would like an ideal job to have.

DIRECTIONS: On the next page are listed 21 phrases that can be used to describe a job. To the right of each phrase is a line representing per cent of time. Rate each of the phrases on the per cent of time you would like that phrase to describe an ideal job. Put a small check mark (✓) at the spot along the line that best describes the per cent of time you would like that phrase to describe an ideal job.

It is not necessary that the phrase describe any one particular job. Just check how much of the time you would like that phrase to describe a job you would most like to have.

Do not open the flap on the next page until you have rated each of the phrases.

Name______________________________ City_____________________________

Reproduced below is a copy of the rating scales for per cent of time. In the form used the scales were printed on a flap that folded back to reveal the importance rating.

1. Check the percentage of time you would like each phrase to describe an ideal job.

PER CENT OF TIME

I WOULD MOST LIKE A JOB THAT -	0	10	20	30	40	50	60	70	80	90	100
Put me in charge of others											
Let me live the way I want to											
Was outdoor											
Let me use my head											
Let me work in my own way											
Had a fair boss											
Put me in contact with other workers											
Required physical work											
Had friendly fellow workers											
Was secure											
Gave me a feeling of accomplishment											
Had plenty of variety											
Let me help other people											
Let me create something new											
Taught me new things											
Let me make beautiful things											
Had pleasant working conditions											
Gave me a chance to get ahead											
Paid well											
Caused my friends to respect me											
Let me set my own pace											

NOW OPEN THE FLAP!!!

Reproduced below is a facsimile of rating scales for importance.

2. Rate each of the phrases below on how important it is to you. 0 means it is not at all important. 10 means it is extremely important. Circle the number that best indicates how important each phrase is to you.

I WOULD MOST LIKE A JOB THAT -	NOT IMPORTANT								VERY IMPORTANT		
Put me in charge of others	0	1	2	3	4	5	6	7	8	9	10
Let me live the way I want to	0	1	2	3	4	5	6	7	8	9	10
Was outdoor	0	1	2	3	4	5	6	7	8	9	10
Let me use my head	0	1	2	3	4	5	6	7	8	9	10
Let me work in my own way	0	1	2	3	4	5	6	7	8	9	10
Had a fair boss	0	1	2	3	4	5	6	7	8	9	10
Put me in contact with other workers	0	1	2	3	4	5	6	7	8	9	10
Required physical work	0	1	2	3	4	5	6	7	8	9	10
Had friendly fellow workers	0	1	2	3	4	5	6	7	8	9	10
Was secure	0	1	2	3	4	5	6	7	8	9	10
Gave me a feeling of accomplishment	0	1	2	3	4	5	6	7	8	9	10
Had plenty of variety	0	1	2	3	4	5	6	7	8	9	10
Let me help other people	0	1	2	3	4	5	6	7	8	9	10
Let me create something new	0	1	2	3	4	5	6	7	8	9	10
Taught me new things	0	1	2	3	4	5	6	7	8	9	10
Let me make beautiful things	0	1	2	3	4	5	6	7	8	9	10
Had pleasant working conditions	0	1	2	3	4	5	6	7	8	9	10
Gave me a chance to get ahead	0	1	2	3	4	5	6	7	8	9	10
Paid well	0	1	2	3	4	5	6	7	8	9	10
Caused my friends to respect me	0	1	2	3	4	5	6	7	8	9	10
Let me set my own pace	0	1	2	3	4	5	6	7	8	9	10

NOW OPEN THE FLAP!!!

Reproduced below is a facsimile of the Job Rating Scale (Actual Form).

Name________________________________City_______________________
Job______________________________Held from________to_________( )

Use the phrases below to describe the job listed above. Check the per cent of time that this job could be described by each phrase.

	PER CENT OF TIME									
THIS JOB -	0	10	20	30	40	50	60	70	80	90	100
Put me in charge of others											
Let me live the way I want to											
Was outdoor											
Let me use my head											
Let me work in my own way											
Had a fair boss											
Put me in contact with other workers											
Required physical work											
Had friendly fellow workers											
Was secure											
Gave me a feeling of accomplishment											
Had plenty of variety											
Let me help other people											
Let me create something new											
Taught me new things											
Let me make beautiful things											
Had pleasant working conditions											
Gave me a chance to get ahead											
Paid well											
Caused my friends to respect me											
Let me set my own pace											

Reproduced below is a copy of Page 1 of the Employer Form. The spacing has been altered.

EMPLOYER FORM

ORGANIZATION ____
ADDRESS ______________________________ Interview date ______________
______________________ Phone ______________ Interview time ______ to ______

INTRODUCTION: Penn State and Rutgers are trying to find out how well the high schools are preparing young people for employment. We are interested in the average graduate. We are not interested in the student who goes on to college or the one who drops out before he graduates. We do want to find out how well prepared the average high school graduate is to get and hold a job.

1. In general, how well do you think high schools are preparing young people for employment? ______________________________
____
____

2. Could you give me a list of the jobs you hire young high school graduates for?

(1)____________________ (2)____________________
(3)____________________ (4)____________________
(5)____________________ (6)____________________
(7)____________________ (8)____________________
(9)____________________ (10)____________________

(a) Are there any general reasons why you usually hire young people for these jobs? ______________________________
____
____
____
____
____

(b) Do you hire young people who have not completed high school for any of these jobs?

Yes ______(IF YES) Which ones? (CIRCLE) 1 2 3 4 5 6 7 8 9 10
No________(IF NO) Is a high school diploma necessary for employment with your organization? Yes______, No______

(COMMENT)________________________
____
____
____

3. I'd like to ask you a series of questions about each of these jobs you hire young people for. I would like to discuss each job separately. However, the questions for each job are the same. If your practices regarding different jobs are the same, just say so and I will only ask you that question once. (FILL OUT JOB SHEET FOR EACH JOB LISTED UNDER Q.2)

Reproduced below is a copy of the Employer Form Page 2. The spacing has been altered.

4. Tell me if you use any of these sources to recruit new workers.

COMMENT

Private employment agencies Yes, No________________________________
Public employment agencies Yes, No________________________________
School placement services Yes, No________________________________
Unions Yes, No________________________________
Personal contacts Yes, No________________________________
Newspaper ads Yes, No________________________________
Others (SPECIFY)____
Which of these do you use the most? (PUT AN "M" IN FRONT OF THE ONE INDICATED)
Which of these do you use the least? (PUT AN "L" IN FRONT OF THE ONE INDICATED)

5. Where, in general, do you think most of the young people you hire acquire the skills they need for your jobs?_____________________
____
____

6. Has anyone from the public schools, such as a placement or guidance counselor ever tried to place recent graduates with you as workers?
Yes______(IF YES) Did you hire the graduates?
No_______(GO TO 7) Yes_______(IF YES) How did they work out?__________
____
____

7. Many people say young workers switch jobs quite often, what has been your experience? (PAUSE) Do your young workers tend to stay with you or do they leave after a short time?___________________________
____
____
Do you find much difference between boys and girls in this regard? ____
____
____

8. What types of jobs, that youth might be trained for, are you finding it hardest to fill right now?__________________________________
____
____
____
(a) Have you thought at all about where these workers may come from?___
____
____
____

Reproduced below is a copy of the Employer Form Page 3. The spacing has been altered.

(IF SCHOOLS NOT MENTIONED) Do you think the local high schools could help by training for these jobs?______________________________

9. Do you think your future needs, say in the next three to five years, will be the same or different from now?____________________

10. Now I'd like to describe some possible hiring situations. In each case there are two applicants, and I'd like you to choose the one you would be more likely to hire. It will be hard to decide with so little information, but try to pick the one you would be more favorable towards.

(a) Suppose you have an opening for a clerical worker. Two young men, both recent high school graduates apply. John took a college preparatory course but decided not to go to college. Tom took a vocational course, but your opening is not in the area he was trained for. Which do you think you would hire?

(RECORD COMMENT)

______John, college preparatory course____________________

______Tom, vocational course____________________________

(b) Suppose the opening were for a maintenance man and the same two young men applied. Would you prefer-

______John, college preparatory course____________________

______Tom, vocational course____________________________

(c) Suppose you need a new office girl. Two young, unmarried women apply. Jane has worked for a number of different companies. All of her past employers say she was a good worker. Sally has just graduated from high school where she studied the commercial course. The high school gives her a good report. Which would you prefer to hire?

______Jane, experience with a number of companies____________

______Sally, commercial course, good school report___________

(d) Here's another one. In this case one of the applicants is a person 35 who has worked in jobs similar to your openings. The other applicant is a recent high school graduate who has been trained for jobs like the one you need a worker for. Which one would you prefer?

______Person of 35____________________________________

______Recent graduate_________________________________

Reproduced below is a copy of the Employer Form Page 4. The spacing has been altered.

(e) Here's a final one. Two young, unmarried girls apply for a secretarial job. You give each a typing test. Lois, who took an academic course in high school, does poorly. However, her school grades were good. Mary took the commercial course. She does well on the typing test, but her school grades were not too good. Which do you think you would hire?

______Lois, poor typing, good school grades______________________

______Mary, good typing, poor school grades______________________

11. Now I'd like to talk to you a bit about vocational education.

(a) What type of courses do the words "vocational education" suggest to you? (PROBE)______________________

(b) What contacts have you had with the vocational education program in the local schools?

(c) Has anyone from the schools' vocational education programs ever talked with you to see if they could serve your needs better?

Yes______, No______(COMMENT)______________________

(d) Do you feel you are getting the cooperation you need from the high schools in filling your employee needs? Yes_____, No_____ (COMMENT)___

(e) Can you think of any way the schools' vocational education programs could be improved?______________________

(f) In general, do you think that the vocation education students have less______, the same______, or more______all-around ability than students in other courses?______________________

(IF LESS) Does this ever influence your hiring decisions?____________

Reproduced below is a copy of the Employer Form Final Page. The spacing has been altered.

COMPANY____________________
CITY____________________

FINAL PAGE

12. Now, just some classification data:

(a) Number of employees_____, number of women_____, approximate percentage non-white_______%

(b) Type of organization____________________
Main products or services____________________

(c) (IF A COMPANY) Is your company unionized? Yes_____, No_____
Is a job bidding procedure in effect for your union employees? Yes_____, No_____
Is it independent_____ or a division_____

(d) How long has your organization been in this community?__________

(e) Full name of respondent____________________
Position in organization____________________
How long have you been with this organization____________________

Reproduced below is a copy of Job Sheet of the Employer Form. One of these was completed for every job listed in response to question 2. The spacing has been altered.

COMPANY________________________
CITY__________________________

Q. 3. JOB SHEET

a. I'd like to ask you about (INSERT JOB TITLE)________________________
b. Is this a job for young men____, young women____, or both____?
c. What are the duties of this job?________________________________

d. How do you select workers for this job?__________________________

e. Are the courses taken in high school important in hiring these workers?
Yes______(IF YES) Which courses do you prefer?________________________

No______(GO TO f) How well do these courses prepare students for this job?____________________________

f. Does your organization give any training for this job?
Yes______(IF YES) What type of training?__________________________

No______(GO TO g)
How long does the training usually last?____________

g. Are there any skills or qualities that the applicants for this job do not have that you would like them to have?__________________________

Reproduced below is a copy of the Union Form Page 1. The spacing has been altered.

UNION FORM

UNION____

ADDRESS_____________________________Interview date__________

_______________________Phone_________Interview time_____to______

INTERVIEWER_____________________________

INTRODUCTION: Penn State and Rutgers are trying to find out how well the high schools are preparing young people for employment. We are interested in the average graduate. We are not interested in the student who goes on to college or the one who drops out before he graduates. We do want to get union opinions about the average graduate.

1. In general, how good a union member does a young high school graduate make?____
____
____

2. Approximately how many young high school graduates joined your union in the past year?_______________________________________
a) Do you have any idea what curriculums these graduates took in high school?
Yes_____(IF YES) What were they mainly?____________________
No______ ____
____

3. I would like to talk a bit about the vocational education programs in the local schools.
a) In general, how adequate do you think they are?_______________
____
____
____

b) What contacts have you had with the vocational education programs in the local schools?______________________________________
____
____
____

(IF NOT MENTIONED) Do you ever consult with school officials to help develop vocational programs? Yes_____, No_____(COMMENT)___________
____
____

c) Can you think of any ways the schools' vocational education programs could be improved?_____________________________________
____
____
____

Reproduced below is a copy of the Union Form Page 2. The spacing has been altered.

4. What are your major sources of young union members?__________________

____

____

a) Do you conduct any recruiting programs among young people?
Yes_____(IF YES) Could you tell me a little about them?____________
No______
____
____
____

5. I'd like to read you a list of phrases that might be applied to either younger or older people who are members of your union. I would like you to indicate whether you feel each phrase best applies to younger or older members. For example, I will read a phrase like "Make better union members" and I'd like you to tell me which group you think this phrase best describes. Some phrases you may feel apply just as well to both. Just the same, I'd like you to try to say which one you feel the phrases best describe. Do you understand?
Yes_____Fine, here is the first phrase.
No______OK, sometimes this is a little confusing, I'll read the instructions again.

	Young	Old	No Difference
File more grievances	____	____	____
Pressures union more for higher wages	____	____	____
More agreeable to change	____	____	____
More willing to strike when it's necessary	____	____	____
Cooperate better with union	____	____	____
Make better stewards	____	____	____
More enthusiastic about the union	____	____	____
Support their leaders better	____	____	____
Work harder for the union	____	____	____
Put the good of their union before their own interests	____	____	____
Complain more about the union	____	____	____
Put their union before their jobs	____	____	____
Are more willing to fight for what they believe	____	____	____
Demand more services	____	____	____
More loyal to union	____	____	____
Are the strength of the union	____	____	____
Are more active in union affairs	____	____	____

Reproduced below is a copy of the Union Form Page 3. The spacing has been altered.

6. In the coming years, say three to five years from now, what types of skills do you think will be required for the occupation or industry over which you have jurisdiction?

   a) Have you thought at all where these skills may come from?

   (IF SCHOOLS NOT MENTIONED) Do you think the local schools could help by teaching these skills?

   b) What role do you think the union you represent can play in developing these skills?

   c) (IF APPRENTICESHIP PROGRAM NOT MENTIONED) Does your union have an apprenticeship program?
   Yes_____(IF YES, GO TO QUESTION 7)
   No______(IF NO, GO TO QUESTION 8)

7. Can you describe, briefly, how it operates?

Reproduced below is a copy of the Union Form Page 4. The spacing has been altered.

a) Have the requirements been changed recently?
Yes_____(IF YES) Will you describe the most important changes?
No______

b) How many apprentices are currently participating in the program?____
c) Can you give us estimates of the number of apprentices who have completed the program in 1964_____, 1963_____, 1962_____, 1961_____, 1960_____.
d) Is the apprenticeship program coordinated with the vocational education program of the high school?
Yes_____(IF YES) Can you tell me how this is set up?____________
No______(GO TO e)

Do you give credit toward the apprenticeship for having taken vocational training?
Yes_____(IF YES) How much credit?____________
No______
How is it administered?__________

e) Are there any skills or qualities that the applicants for apprenticeship do not have that you would like them to have? Yes_____, No_____
(COMMENT)____________

8. Does your union conduct or participate in any other type of training program?
Yes_____(IF YES) What kinds?____________
No______

Reproduced below is a copy of the Union Form Final Page. The spacing has been altered.

UNION________________________
CITY_________________________

FINAL PAGE

9. What do you think about the usefulness of governmental training and retraining programs such as MDTA or ARA?______________________

a) Have you had any such programs in your community?
Yes_____(IF YES) GO TO QUESTION b.
(IF NO) GO TO GENERAL INFORMATION

b) Are you satisfied with these programs?________________________

What types of skills or occupations have these retraining programs been concerned with?___________________________________

d) Have workers who have completed these programs obtained jobs.
Yes_____(IF YES) About what percentage?_____________________%
No______ Have they found them in this community? Yes______,
No______

GENERAL INFORMATION

How many members are there in the union in the area?__________What proportion does this represent of all workers eligible to join?_____________How much are your monthly dues? $_____________________. Is this an industrial_____ or craft_________union?

Has your union been gaining or losing members in recent years?______________

How long have you been an official of the union?______________Years
Name____
Position with Union____
Are you a full-time union employee?
Yes_____
No______(IF NO) Who is your regular employer?______________________

Reproduced below is a facsimile of the card that was used to verify the graduate interviews.

Recently you should have been interviewed concerning jobs you have held since graduating from high school.

Some of the questionnaires we have received have not been completely filled out. We are checking with you to see if the things listed on the attached card were completed in your interview.

Please answer the questions on the attached card, tear it away from this half and return it. (No postage is necessary.)

Be sure to return this card even if you were not interviewed. Only if you respond will we be able to check your name off our list.

Thank you,

The Pennsylvania State University
Rutgers - The State University

Please answer these questions and return this card.

1) Your name ______________________________ City__________________

2) Were you recently interviewed concerning jobs you have held since you graduated? Yes _____, No_____

3) Were you asked to rate how satisfied you were with different areas of these jobs? Yes_____, No_____

4) Were you asked about your parents' education and occupation? Yes_____, No_____

5) Check approximately how long the interview lasted.

Less than 15 minutes_____
15 to 30 minutes _____
30 to 45 minutes _____
More than 45 minutes_____

Facsimile of card used to verify interviews of employers.

Recently you should have been interviewed concerning the job preparation of high school graduates.

Some of the questionnaires we have received have not been completely filled out. We are checking with you to see if the things listed on the attached card were completed in your interview.

Please answer the questions on the attached card, tear it away from this half and return it. (No postage is necessary.)

Be sure to return this card even if you were not interviewed. Only if you respond will we be able to check your name off our list.

Thank you,

The Pennsylvania State University
Rutgers - The State University

Please answer these questions and return this card.

1) Organization ____________________ City __________

2) Were you recently interviewed concerning the jobs you hire young people for? Yes ____, No ____

3) Were you asked to decide between two applicants in some hypothetical hiring situations? Yes ____, No ____

4) Were you asked to complete and mail a form about attitudes toward high school education? Yes ____, No ____

5) Check approximately how long the interview lasted.

Less than 15 minutes _____
15 to 30 minutes _____
30 to 45 minutes _____
More than 45 minutes _____

Copy of cover page of Graduate Mail Questionnaire. The spacing has been altered. The actual mail questionnaire had the format of a four inch by nine inch self-mailed booklet. Each of the pages after the first was slightly longer to lead the respondent through the booklet.

SURVEY OF HIGH SCHOOL AND POST-HIGH SCHOOL EXPERIENCES

A study being conducted by The Pennsylvania State University and Rutgers - The State University of New Jersey in cooperation with your high school.

Copy of inside cover page of Graduate Mail Questionnaire. The spacing has been altered.

INTRODUCTION: Penn State and Rutgers are trying to find out how well high schools are preparing their students for employment. You have been randomly selected as a representative of all students who graduated between 1960 and 1964. We would like you to answer some questions on your experiences in high school and since you have left. All of your answers are completely confidential and will be revealed to no one.

Copy of Page 1 of Graduate Mail Questionnaire. The spacing has been altered.

I HIGH SCHOOL EXPERIENCE

a. Date graduated____________________

b. In general, did you like_____ or dislike high school_____?

c. Major course of study in high school?_________________________________
Did you ever discuss your course choices with a guidance counselor?
Yes_____, No_____

d. What kind of a job did you hope to get after you graduated?___________
____
Did you ever discuss your job plans with a guidance counselor?
Yes_____, No_____

e. Would you suggest to a young person just starting high school that he or she take the courses you took? Yes_____, No_____
↓
(IF NO)
What courses would you suggest?
____
____
____

f. Did you feel it was harder to take part in school activities because of the courses you took? Yes_____, No_____

g. Did you feel you were really part of the school? Yes_____, No_____

Copy of Page 2 of Graduate Mail Questionnaire. The spacing has been altered.

h. Do you think your school made a real effort to prepare you to go out and get a job? Yes_____, No_____

i. How hard did you, yourself, try in high school to get the training necessary to be able to get a job?

______Tried very hard

______Tried hard

______Tried as much as the average student

______Tried a little

______Didn't try much at all

j. After you graduated, did you ever move away from your home town to another city where you lived and worked for 3 months or longer?
Yes_____, No_____→(GO TO PAGE 3)
↓
(IF YES)

Where did you move to?______________________________

Why did you decide to go there?______________________________
____

What jobs did you have?______________________________
____

How long did you live there?______________________________
____

Did you move back to your home town? Yes_____, No_____

Copy of Page 3 of Graduate Mail Questionnaire. The spacing has been altered.

II MILITARY SERVICE RECORD

Complete only if you are now or ever have been on active duty for three months or longer.

a. What branch did you serve in?

Air Force______

Army______

Marines______

Navy______

Other (Specify) ____

b. Did you enlist_____, were you drafted_____, or did you volunteer for for the draft_____?

c. Why did you enter the service when you did?________________________

____

____

d. When did you go on active duty?________________________________

When were you released?____

e. After basic training, what type of specialized training did you receive?

____

f. Did any of the training or experience you had in the service help you when you returned to civilian life?

Yes_____, No_____
↓
(IF YES) How did it help?______________________________________

____

____

Did it help you get a job? Yes_____, No_____

g. In general, would you say you liked_____, or disliked_____ your time on active duty?

Copy of Pages 4 and 5 of Graduate Mail Questionnaire. The spacing has been altered.

III POST HIGH SCHOOL TRAINING PROGRAMS

Please answer the questions below for any educational or training programs you have taken since high school. Do not include on-the-job training. List only programs where your time was spent learning new skills or knowledge. Record your answers in the columns below.

1. What did the program train you for?
2. When did you start and leave the program? (Month & Year)
3. Did you take this training on your own or was it given to you by a company you worked for or in the armed service?
4. Did any of the courses you took in high school help you to learn the new skills of this program? (IF YES) which courses?
5. Were you satisfied with the results of the program? (IF NO) Why not?

(1) Trained for	(2) Dates & Hours	(3) How Obtained	(4) Helpful Courses	(5) Results
____ ____ ____	Start ____ End ____ Hours ____	On own ____ Company ____ Service ____	Y__ N__ ____ ____ ____	Y__ N__ ____ ____ ____
____ ____ ____	Start ____ End ____ Hours ____	On own ____ Company ____ Service ____	Y__ N__ ____ ____ ____	Y__ N__ ____ ____ ____
____ ____ ____	Start ____ End ____ Hours ____	On own ____ Company ____ Service ____	Y__ N__ ____ ____ ____	Y__ N__ ____ ____ ____
____ ____ ____	Start ____ End ____ Hours ____	On own ____ Company ____ Service ____	Y__ N__ ____ ____ ____	Y__ N__ ____ ____ ____

Copy of part of Pages 6 and 7 of Graduate Mail Questionnaire. The spacing has been altered.

IV POST HIGH SCHOOL WORK EXPERIENCE

Please answer these questions only for those jobs you held for three months or longer and worked at for 30 hours or more each week. Record your answers in the columns below.

1. What was this job called? What dates did you start and leave the job. (Month & Year).
2. What did you do?
3. What was your pay when you started and left the job? How many hours a week did you work?
4. Did any of the courses you took in high school help to prepare you in any way for this job? (IF YES) Which courses?
5. Rate your general satisfaction with this job. 1 means you were completely dissatisfied.
   7 means you were completely satisfied.

(1) Job Title & Dates	(2) Job Duties	(3) Pay & Hours	(4) Helpful Courses	(5) Satisfaction
Start ______ End ______	______	Start ______ $/hr,mo End ______ $/hr,mo ______ hrs/wk	Y__ N__ ______	Dissatisfied 1 2 3 4 Satisfied 5 6 7
Start ______ End ______	______	Start ______ $/hr,mo End ______ $/hr,mo ______ hrs/wk	Y__ N__ ______	Dissatisfied 1 2 3 4 Satisfied 5 6 7
Start ______ End ______	______	Start ______ $/hr,mo End ______ $/hr,mo ______ hrs/wk	Y__ N__ ______	Dissatisfied 1 2 3 4 Satisfied 5 6 7
Start ______ End ______	______	Start ______ $/hr,mo End ______ $/hr,mo ______ hrs/wk	Y__ N__ ______	Dissatisfied 1 2 3 4 Satisfied 5 6 7
Start ______ End ______	______	Start ______ $/hr,mo End ______ $/hr,mo ______ hrs/wk	Y__ N__ ______	Dissatisfied 1 2 3 4 Satisfied 5 6 7

Copy of Page 8 of Graduate Mail Questionnaire. The spacing has been altered.

V GENERAL INFORMATION

a. Father's occupation when you were in high school____________________

How far did your mother go in school?____________________________

About how much money per year did your family have to live on when you were in high school?

$_______________ per year

b. Do you think you have more_____or less_____ chance to get ahead than your parents did when they were your age?

Which do you think is more important in getting ahead, hard work_____ or good luck_____?

c. Of the jobs you think you could handle, what kind would you most like to have right now?____

d. What do you think you will be doing 5 years from now?_______________

____

How much money do you think you or your family will have to live on?

$_______________per year

How about in 10 years?

Doing____

$_______________per year

Copy of last page of Graduate Mail Questionnaire. The spacing has been altered.

VI CLASSIFICATION DATA

Age__________

Male__________ Female__________

White_________ Nonwhite__________

Married__________ Single__________

Number of dependents (not counting yourself)_________

Do you maintain your own home?

Yes_____, No_____

(IF YES) House_____, Apartment_____, Room_____, Other (Describe)___________

Do you rent_____ or are you buying_____?

THANK YOU

Seal the folder with the seal provided and mail. No postage is necessary. Thank you for your cooperation.

Copy of part of Page 1 Attitude Questionnaire. The spacing has been altered. The memorandum and classification information differed on the teacher and employer form.

MEMORANDUM

FROM: The Pennsylvania State University

TO: Organizations Cooperating in Study

SUBJECT: Attached Questionnaire

As part of your organization's cooperation with the Penn State-Rutgers study, THE PREPARATION OF YOUTH FOR EFFECTIVE OCCUPATIONAL UTILIZATION, we would like you to complete the attached questionnaire. When you have completed it, please return it to Penn State in the business reply envelope provided.

You do not need to sign the questionnaire, but for classification purposes, we would like you to fill in the information requested below.

ATTITUDES TOWARDS HIGH SCHOOL EDUCATION

Please fill in the following information:

City (employer) School System (teacher)
Main products or services (employer) Subjects taught (teacher)
Number of employees (employer) Years teaching (teacher)
Your position with organization (employer) Year of degree or certification (teacher)

Definitions for the Purpose of This Survey

Vocational education in high school means public school instruction that developes the basic skill, judgment, and job-related knowledge, sufficient to prepare youth for full-time employment in business, agriculture, trade, industry, and other occupational areas.

A college preparatory program in high school is that sequence of courses which prepares a student either to enter a college of his choice, or to meet the general requirements of most colleges or universities.

Directions

We would like to know how you FEEL about vocational education in comparison with other high school programs. We want you to answer each item as honestly as you can. We ask you NOT to write your name on these sheets, for it is only your truthful answers that are important -- it does not matter who gives the answers.

Please circle the response which corresponds the closest to your feeling about each item.

SA = Strongly Agree
A = Agree
U = Uncertain
D = Disagree
SD = Strongly Disagree

Do not take too much time in thinking about any particular item. Please do not leave any item out -- there is no right or wrong answer -- it is just how YOU feel about things. Other people may have different opinions.

Copy of continuation of Page 1.

Here is an example:

Some high school students are too undisciplined to employ.
[✓ SA] A U D SD

This person strongly agrees with the item and, thus, feels that some students are definitely too undisciplined for employment.

Put a circle around the answer which comes the closest to representing your feeling. Even if your exact feeling is not found in one of the choices, pick the one which comes the closest to your true feeling. Sometimes it will be hard to make up your mind, but do the best you can and do not leave any out.

This questionnaire is used through the courtesy of The University of Michigan Cooperative Research Project 1577.

Copy of part of Page 2 of Attitude Questionnaire. The spacing has been altered.

BEGIN HERE:

CIRCLE ONE

1. SA A U D SD 1. It is more important to provide many students with a sound basic education than to use the time for vocational education.
2. SA A U D SD 2. A high school graduate of a vocational education program impresses me a great deal.
3. SA A U D SD 3. Those high school students who would want to take vocational education are not mature enough to profit from it.
4. SA A U D SD 4. Vocational education does not make enough students useful members of society to justify its cost.
5. SA A U D SD 5. I would favor expanding vocational education programs even if available funds remain the same.
6. SA A U D SD 6. Most vocational education courses in my opinion lead nowhere.
7. SA A U D SD 7. In my opinion there are not enough students in vocational education at the high school level.
8. SA A U D SD 8. I should like to see the values of vocational education made known to more parents than is now the case.
9. SA A U D SD 9. I am opposed to expanding vocational education programs in high school **when so many** students need the basic subjects.
10. SA A U D SD 10. For many students in high school, there should be greater emphasis on earning a living through a vocational education program.
11. SA A U D SD 11. Vocational education programs cannot possibly prepare high school students for the range of job opportunities available to them.
12. SA A U D SD 12. In my opinion, taking vocational education hinders students from further education after high school.
13. SA A U D SD 13. Results of vocational education programs I have seen or heard about were beneficial to the communities involved.
14. SA A U D SD 14. I do not think vocational education in high school is as necessary for most students as are other worthwhile programs.
15. SA A U D SD 15. In my opinion, a graduate of a high school vocational education program is generally suited only for unskilled work.
16. SA A U D SD 16. There should be more money set aside in the school budget for vocational education.

Copy of continuation of Page 2.

17. SA A U D SD 17. Most students who take vocational education in high school in my opinion lack too many other scholastic skills.

18. SA A U D SD 18. I should like to see vocational education encouraged more among high school students.

19. SA A U D SD 19. In my opinion vocational education in the high school is highly overrated.

20. SA A U D SD 20. I believe good vocational education programs in public schools attract new industries to a community.

21. SA A U D SD 21. It seems to me that vocational education in high school does not prepare a student for advancement in an occupation.

22. SA A U D SD 22. A more considerable portion of the high school curriculum than at present should be devoted to vocational education.

23. SA A U D SD 23. I am of the opinion that vocational education is too costly in proportion to its worth to the community.

24. SA A U D SD 24. In my opinion most public schools do not provide vocational education programs early enough.

25. SA A U D SD 25. I would cooperate with others in order to develop the best vocational education program for this community.

26. SA A U D SD 26 I favor reducing vocational education programs when available school funds are in short supply.

27. SA A U D SD 27. This community should provide a wide variety of vocational programs to fit the abilities of most students not going to college.

28. SA A U D SD 28. I am thoroughly sold on offering vocational education in high school.

Copy of part of Page 3 of Attitude Questionnaire. The spacing has been altered.

The following scales are quite different from the preceding statements. Read through the examples and they will show you how you should respond.

Examples

Think about Vocational Education in High School

	Very	Quite	Some-what	Neither or both	Some-what	Quite	Very	
Useful	___:	_X_:	___:	___:	___:	___:	___:	Useless

You should ask yourself, "Does the phrase, Vocational Education in High School, mean to me something useful or useless?" You decide and mark the scale in the space closest to your feeling. The mark X here indicates that the phrase, Vocational Education in High School, means something quite useful. Again

Think about College Preparatory Education in High School

	Very	Quite	Some-what	Neither or both	Some-what	Quite	Very	
Disadvan-tageous	___:	___:	___:	___:	_X_:	___:	___:	Advantageous

Here the X describes College Preparatory Education in High School as somewhat advantageous.

With the following, first read the phrase at the top, then glance down at each pair of words. Put an X in the space under the word that best describes your true feeling for the pair. Move to the next set and do the same. Please answer every item.

Think about Vocational Education in the High Schools

	Very	Quite	Some-what	Neither or both	Some-what	Quite	Very	
Worthy	___:	___:	___:	___:	___:	___:	___:	Unworthy
Unsuccessful	___:	___:	___:	___:	___:	___:	___:	Successful
Interesting	___:	___:	___:	___:	___:	___:	___:	Boring
Satisfac-tory	___:	___:	___:	___:	___:	___:	___:	Unsatis-factory
Unrewarding	___:	___:	___:	___:	___:	___:	___:	Rewarding
Impractical	___:	___:	___:	___:	___:	___:	___:	Practical
Desirable	___:	___:	___:	___:	___:	___:	___:	Undesirable
Unessential	___:	___:	___:	___:	___:	___:	___:	Essential
Effective	___:	___:	___:	___:	___:	___:	___:	Ineffective
Important	___:	___:	___:	___:	___:	___:	___:	Unimportant
Harmful	___:	___:	___:	___:	___:	___:	___:	Helpful
Worthless	___:	___:	___:	___:	___:	___:	___:	Valuable
Meaningful	___:	___:	___:	___:	___:	___:	___:	Meaningless
Unrealistic	___:	___:	___:	___:	___:	___:	___:	Realistic
Definite	___:	___:	___:	___:	___:	___:	___:	Indefinite
Attractive	___:	___:	___:	___:	___:	___:	___:	Unattractive
Profitable	___:	___:	___:	___:	___:	___:	___:	Unprofitable

Copy of continuation of Page 3.

	Very	Quite	Some-what	Neither or both	Some-what	Quite	Very	
Aimless	___:	___:	___:	______:	___:	___:	___:	Purposeful
Insecure (Future)	___:	___:	___:	______:	___:	___:	___:	Secure (Future)
Disreputable	___:	___:	___:	______:	___:	___:	___:	Respectable

Copy of Page 4 of Attitude Questionnaire. The spacing has been altered.

Please mark with an X one of the following:

I should describe my attitude towards vocational education in high school as:

	Very	Quite	Somewhat	Neither or both	Somewhat	Quite	Very	
Favorable	___:	___:	___:	___:	___:	___:	___:	Unfavorable

Think about College Preparatory Education in the High Schools

	Very	Quite	Somewhat	Neither or both	Somewhat	Quite	Very	
Desirable	___:	___:	___:	___:	___:	___:	___:	Undesirable
Unrealistic	___:	___:	___:	___:	___:	___:	___:	Realistic
Worthy	___:	___:	___:	___:	___:	___:	___:	Unworthy
Unessential	___:	___:	___:	___:	___:	___:	___:	Essential
Indefinite	___:	___:	___:	___:	___:	___:	___:	Definite
Successful	___:	___:	___:	___:	___:	___:	___:	Unsuccessful
Effective	___:	___:	___:	___:	___:	___:	___:	Ineffective
Unattractive	___:	___:	___:	___:	___:	___:	___:	Attractive
Boring	___:	___:	___:	___:	___:	___:	___:	Interesting
Important	___:	___:	___:	___:	___:	___:	___:	Unimportant
Profitable	___:	___:	___:	___:	___:	___:	___:	Unprofitable
Satisfactory	___:	___:	___:	___:	___:	___:	___:	Unsatisfactory
Harmful	___:	___:	___:	___:	___:	___:	___:	Helpful
Worthless	___:	___:	___:	___:	___:	___:	___:	Valuable
Rewarding	___:	___:	___:	___:	___:	___:	___:	Unrewarding
Purposeful	___:	___:	___:	___:	___:	___:	___:	Aimless
Insecure (Future)	___:	___:	___:	___:	___:	___:	___:	Secure (Future)
Impractical	___:	___:	___:	___:	___:	___:	___:	Practical
Respectable	___:	___:	___:	___:	___:	___:	___:	Disreputable
Meaningful	___:	___:	___:	___:	___:	___:	___:	Meaningless

Please mark with an X one of the following:

I should describe my attitude towards college preparatory education in high school as:

	Very	Quite	Somewhat	Neither or both	Somewhat	Quite	Very	
Favorable	___:	___:	___:	___:	___:	___:	___:	Unfavorable